a W. R. C. Smith publication

Textile Industries

Formerly "COTTON"

AUGUST, 1955

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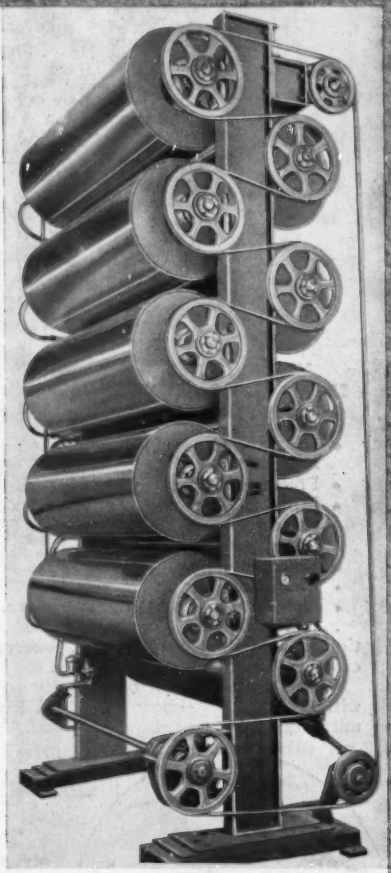
VEE BELT

Drives For Dry Cans, With These Top Features:

- *Silent Smooth Operation*
- *Oil and Grease Free*
- *High Speed Operation*
- *Long, Trouble-free Service*
- *Low Maintenance Expense*
- *Automatic Pneumatic Belt Tightening*



Your present gear or chain drives can be converted at nominal cost. Call us for free estimates at no obligation.

The Textile Shops

SPARTANBURG, S. C.

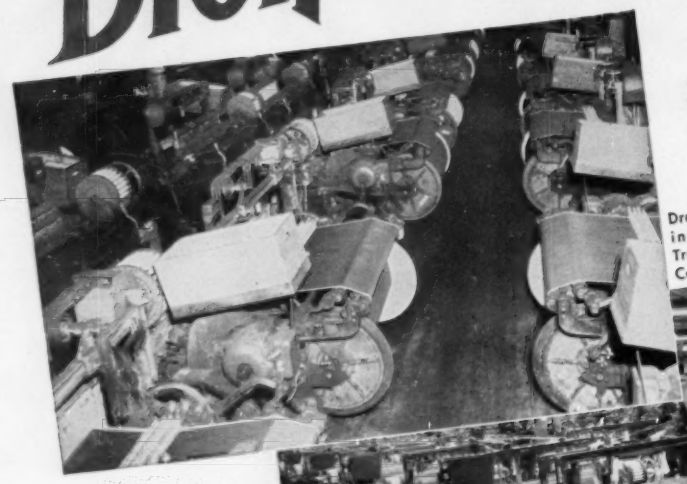
PHONES 36356 36357

Largest textile mill circulation in the world

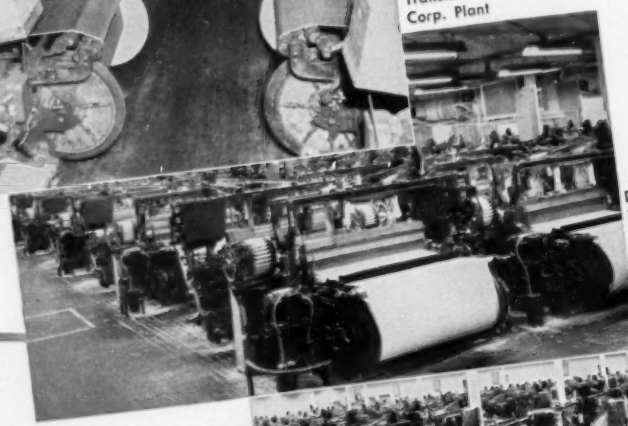
Diehl POWER TRANSMITTER

is assuring maximum weaving efficiency in leading mills

Thousands of Diehl Power Transmitters are operating DRAPER LOOMS in leading textile mills. Many have been in continuous operation for five years.



Draper X2 looms operating with Diehl Power Transmitters in Cone Mills Corp. Plant



Draper XD looms operating with Diehl Power Transmitters at Bibb Manufacturing Company, Columbus, Georgia.

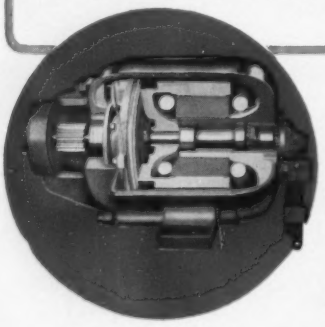
Draper XD looms operating with Diehl Power Transmitters at the Lyons Plant, Synthetic Division, M. Lowenstein and Sons.

MILL MEN ARE ENTHUSIASTIC ABOUT THESE FEATURES

- "Stored energy" for smooth, rapid starts and positive picking.
- Precision braking.
- Minimum fluctuations of speed and motor current.
- Lower power consumption.
- Lower motor heat losses.
- Eliminates current regeneration.
- Simplicity and ease of maintenance.

. . . all of which adds up to increased mill production, improved quality of cloth, lowered operating costs and long, trouble-free service.

We will welcome an opportunity to tell you—without obligation—how the Diehl Power Transmitter can bring these benefits to you.



This cutaway view illustrates the inverted construction of the power transmitter and shows the rotor which revolves around the outside of the stator on a hollow shaft—providing the essential inertia without the disadvantages of a separate fly wheel. Note the pinion driving shaft with attached clutch-plate which is shifted axially by simple lever at front end of motor, regulating clutch engagement pressure and providing controlled driving and braking action.

Visit us at Booth No. 429 at the
THE PRODUCTION ENGINEERING SHOW
(the Automation Exposition)
Navy Pier, Chicago
September 6-16, 1955

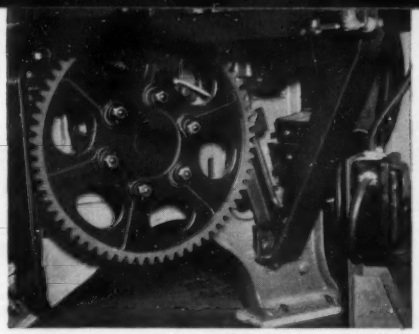
DIEHL MANUFACTURING COMPANY

Electrical Division of THE SINGER MANUFACTURING COMPANY

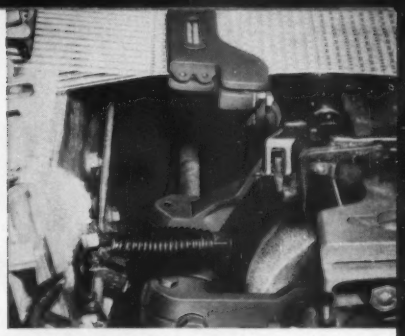
Finderne Plant, SOMERVILLE, NEW JERSEY

ATLANTA • BALTIMORE • NEEDHAM, MASS. • CHICAGO • CINCINNATI • NEW YORK • PHILADELPHIA • PITTSBURGH

PIN AND SLEEVE TYPE PARALLEL, provides a more positive, easier picking action, improves shuttle flight control and reduces wear on all component parts.



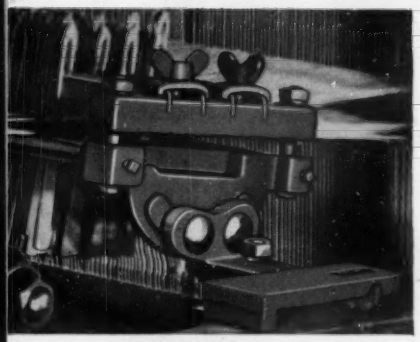
TWO-PIECE CAM SHAFT GEAR, *cuts maintenance cost.* The simplified construction of this gear permits gear turning or replacements to be made easier.



UNDERSLUNG TEMPLE, reduces "seconds" and eliminates the chance of oil, rust or dirt getting on the cloth from the temple. Requires no lubrication and temples will not wear out of line.

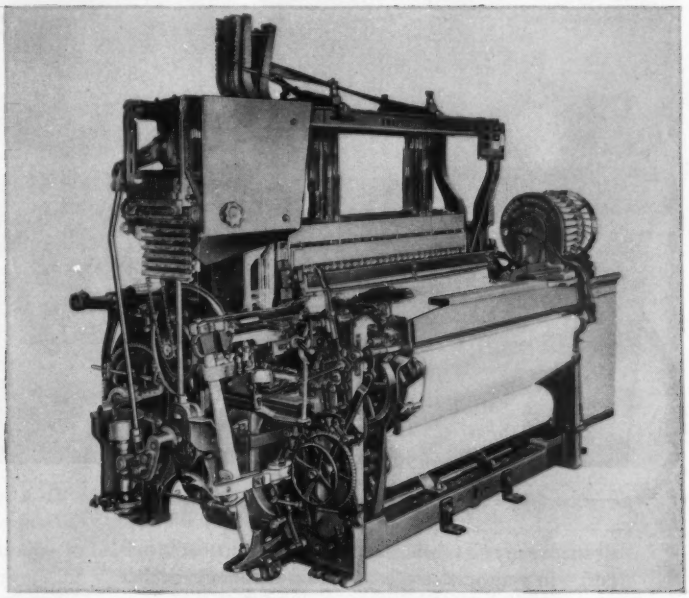
LABOR SAVING FEATURES

THAT INCREASE XD EFFICIENCY AND PRODUCTION . . . CUT MAINTENANCE



THE ADJUSTABLE ELECTRIC WARP STOP MOTION BRACKET, allows a greater range of adjustment and reduces lint accumulation of the Stop Motion parts.

PICK SHAFT WITH THRUST WASHER (Floating), reduces wear on Pick Shaft commonly caused by end thrust. Thrust is absorbed by the floating washer, assembled between the hardened steel washer and Pick Shaft Box.



DRAPER XD MODEL LOOM

The parts shown are but a few of many new applications available for the XD model loom. Each is designed to attain *maximum efficiency, continuity of service,* and *reduced maintenance.*

Every Draper part is *engineered by men who know your problem* and each is thoroughly field tested to prove operating economy under actual mill conditions.

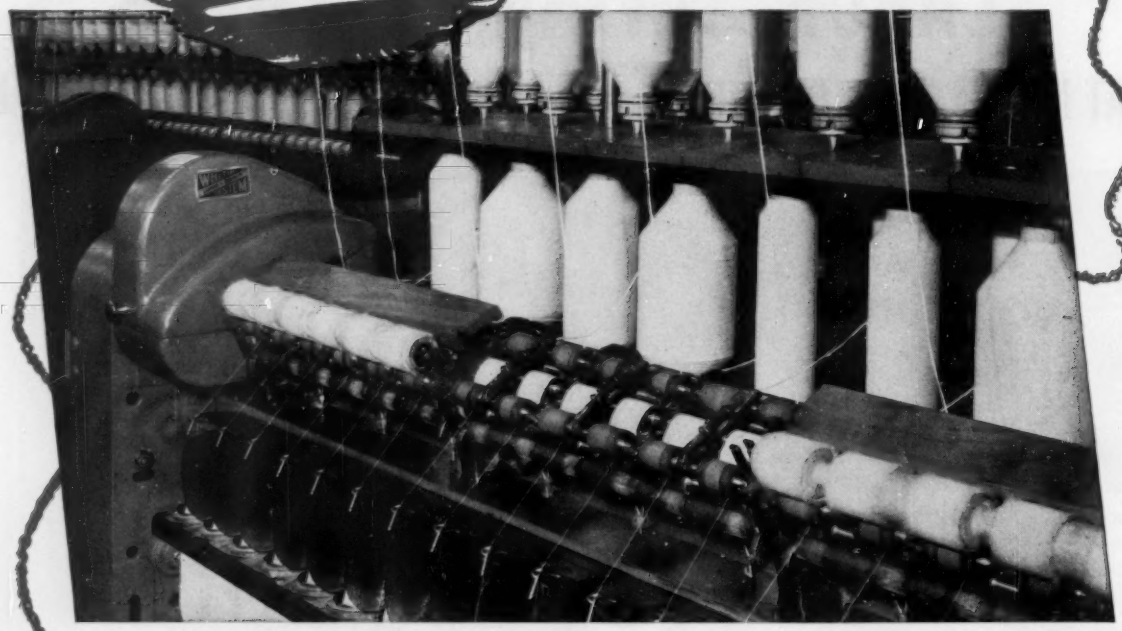
It is this kind of practice which results in *more production, at less cost, to your mill.*

DRAPER CORPORATION

HOPEDALE, MASS.

ATLANTA, GA.
GREENSBORO, N. C.
SPARTANBURG, S. C.

We're not spinning a yarn, STAZON STAYS ON



BETTER QUALITY, cleaner yarn and fabric, produced in less time at lower cost—to get these results you need the lubricant that stays *on* the bearing surfaces and *off* the goods—*Texaco Stazon.*

Texaco Stazon won't creep onto cots or throw off in spinning. And it won't splatter or drip in weaving, even under severe loom vibration. Besides these cost-reducing benefits, *Texaco Stazon* is easy to apply, lasts longer, does not form gummy deposits, and is not affected by humidity.

To assure spindle efficiency, use *Texaco Spindura Oil*—approved by spindle manufacturers for all types of spindles. And for fibre conditioning, use *Texaco Texspray Compound* and get consistently uniform, stronger yarn.

Whatever the lubrication requirements of your mill, a Texaco Lubrication Engineer can show you the way to increased production at lower cost. Call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write:

The Texas Company, 135 East 42nd Street, New York 17, New York.

TEXACO

TEXACO Lubricants

FOR THE TEXTILE INDUSTRY

TUNE IN . . . TEXACO STAR THEATER starring DONALD O'CONNOR or JIMMY DURANTE on television . . . Saturday nights, NBC.

ABC NBP BPA

Textile Industries

Formerly "COTTON"

Vol. 119, No. 8
August, 1955

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TEXTILE INDUSTRIES is published monthly at 116 E. Crawford St., Dalton, Ga., by W. R. C. Smith Publishing Company, Dalton and Atlanta, Ga., U. S. A. W. J. Rooke, chairman of the board; R. P. Smith, president. Executive and Editorial Offices: 806 Peachtree St., N. E., Atlanta 5, Ga.
Subscription Rates: United States and Possessions, $2.00 for one year; Canada, South America, Central America, $2.00 per year; Foreign Countries, $5.00 per year. Entered as second-class matter at the post office, Dalton, Georgia, under the Act of March 3, 1879.

Now TWO plants to serve you. Prompt delivery by our own fleet throughout the South and Southwest!

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For quick delivery of tubes...

Overnight to practically any mill in the South and Southwest. Let's get together and set up a delivery schedule that fits right in with your production schedule. Telephone, write or wire!

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Manufacturers of better

Convolute and Spiral Wound Cloth Tubes

Carpet and Rug Cores

Yarn Tubes

Cloth Winding and Baling Boards

Beaming and Carlining Paper

Shorts and Remnants

by J. C. C.

► And what is so rare as a day in August—except some of them may be a little hot, but you can always go fishing or swimming or just turn on the hose.

► Or if you live in or around Charlotte, N. C., you can join in the uranium rush and "Strike it Rich." Science is wonderful—some good reader of S & R must have figured from that "mountain climber's special" of last month that we were going scientific. An envelope to S & R with no letter along with it contained almost a full page ad from the "Charlotte Observer" of June 17 featuring the new model 111B Deluxe Scientillator (Geiger counter) for measuring uranium in percentages and featured on the street floor that day at Efirds department store—probably right next to the hosiery counter. Seem as though "You too can be a uranium millionaire!" All for only $495.00 with carrying case and shoulder strap. Just the thing for that summer slack in textiles.

► P. S. They also have a $29.95 model called the "Snooper." That's for us.

► And of course it's only money. Friend of ours in Texas swears a small town cafe out there features "all you can eat for $500.00."

► Folks get an idea fast. Old S&R had a picture recently of a couple of good southern boys getting the sales award, so this month we received one from E. H. Jacobs' northern division with three more southern boys

winning the nationwide sales contest. Reading left to right, 1st prize **L. L. Froneberger, Jr.,** Greensboro, N. C.; 2nd, **John Mornington,** Danielson, Conn.; 3rd, **Ralph Briggs,** Atlanta, Ga. OK, OK - Mr. Mornington covers *southern* New England.

► Also Courtaulds (Alabama), Inc., sounds like a good southern com-

Photo courtesy Burlington Decorative Fabrics, Burlington Industries, Inc.

A new wrinkle to end all others

— and it's based on PLIOLITE LATEX

How to reduce wrinkling and improve the general performance of decorative fabrics was long a problem to a leading manufacturer. Many types of undercoatings were tried. Some improved strength and durability, but this was offset by brittle feel, reduced flexibility and resilience, high cost, objectionable odor, poor adhesion and other objectionable features.

The ultimate solution was a coating based on PLIOLITE LATEX. Barely visible, this lightweight, odorless backing muscles fabrics in every direction, permits them to retain shape after severe stretching, ends wrinkling problems. It also improves body and drape and binds the fibers in place, increasing resistance to raveling, tearing and snagging. And it's permanent!

PLIOLITE LATEX is the family name for a series of styrene-butadiene copolymer dispersions, ranging from elastomeric to resinous in nature. These latices used in saturants, sizes, finishes, inks and adhesives are doing much to improve appearance and durability of a wide range of textiles. What can you do with the strength, flexibility, permanence and resistance to chemicals, abrasion and age of a PLIOLITE LATEX? For details, write:

Goodyear, Chemical Division, Akron 16, Ohio

CHEMICAL GOODYEAR DIVISION

Chemigum, Pliobond, Plioflex, Pliolite, Plio-Tuf, Pliovic —T. M.'s The Goodyear Tire & Rubber Company, Akron, Ohio

The Finest Chemicals for Industry—CHEMIGUM • PLIOBOND • PLIOFLEX • PLIOLITE • PLIO-TUF • PLIOVIC • WING-CHEMICALS

"It ain't fair, Cyclone Fence ruins our work and our play"

Cyclone Fence protects everything from baby fish to nuclear reactors. It's a heavy-duty fence, built to rigid industrial standards—that's why it is the most widely used property protection fence in the whole wide world.

You *can* buy cheaper fence than Cyclone, but it will cost more in the long run. Cyclone contains nothing but brand-new, top-quality material.

The chain link fabric is woven from heavy steel wire — galvanized *after* weaving to prevent cracks that encourage rust. Erection is handled by full-time, well-trained experts, so you can be sure of a fence that stays taut and trim.

Cyclone engineers will be glad to help you solve your fencing problems. *Send for the free booklet.*

CYCLONE FENCE DEPT., AMERICAN STEEL & WIRE DIVISION, UNITED STATES STEEL CORPORATION
WAUKEGAN, ILLINOIS · SALES OFFICES COAST-TO-COAST · UNITED STATES STEEL EXPORT COMPANY, NEW YORK

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Cyclone is the trade-mark name of fence made only by Cyclone. Accept no substitute.

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Our informative booklet is filled with photographs, drawings and graphic descriptions of different styles of fence and gates for the protection of property. Whether you're interested in a few feet of fence or miles of it, you'll find this booklet worth your while. Send for your copy. It's free.

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Please mail me, without charge or obligation, a copy of your booklet.

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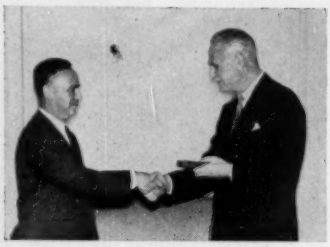
USS

UNITED STATES STEEL

Shorts and Remnants

pany, so here goes with a picture of **Royston Dunford,** who gets the gold watch from **Sir John Hanbury-Williams,** chairman of board of Cour-



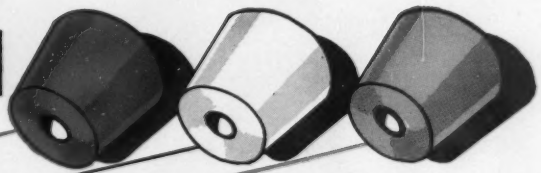
taulds Ltd., England, for 30 years of service.

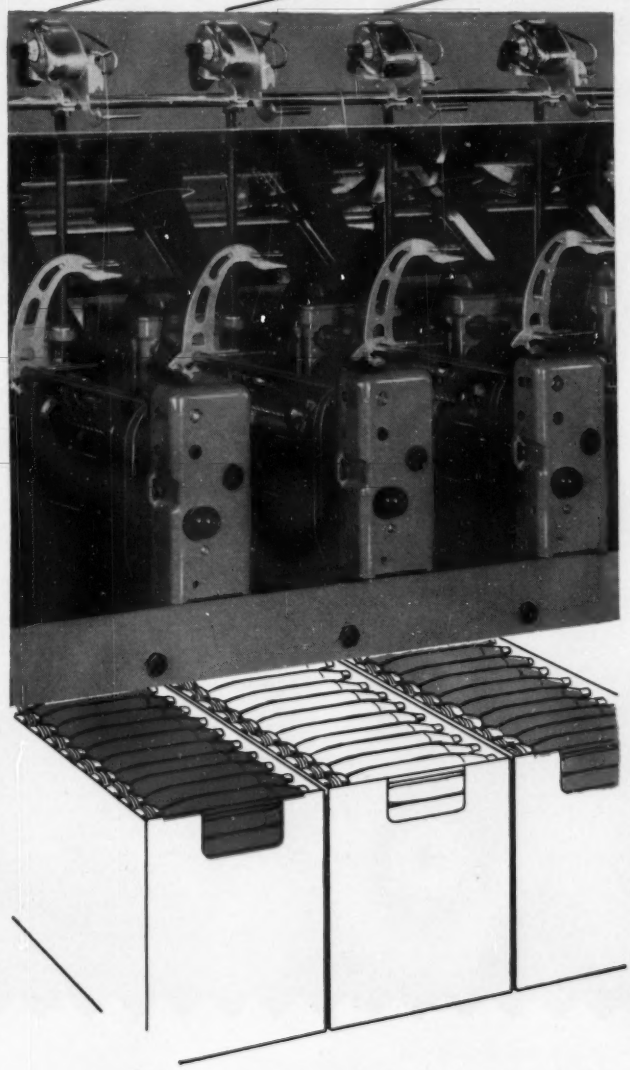
► And while we are about it, we want to mention a good advertiser, Pittsburgh Corning Corp., makers of Foamglas insulation, who just won second place prize of $1500 in a contest for 10 best industrial advertising campaigns in the U.S.A. Handing

over the citation is **Col. R. L. Putnam,** sponsor, to **W. H. Polk,** adv. mgr. (center). On the right is **A. L. Lightner, Jr.** of Pittsburgh Corning's ad agency, Ketchum McLeod & Grove, Inc.

► The June issue, as you all well know, did a bang up job on Tufted Textiles (loud applause). Anyway we thought so and first to agree was **Campbell Petty** of Cabin Crafts, Inc., Dalton, Ga., who says, " . . . you have done a very nice job. . . . " **Callaway Mills,** LaGrange, Ga., wrote for 10 reprints. **John S. Brice,** Chemical Div., Goodyear, writes ". . . . We were interested and pleased. . . . " **Sada N. Williams,** Tufted Textile Manufacturers Association, says " . . I think it was one of the best ever written and I have heard the same comment from many of our members. . . . " **Vol T. Blacknall,** floor covering distributor of Atlanta, Ga., wanted copies for all of his salesmen. Judging from a few other letters, maybe TI should start a furniture section. *(Continued page 10)*

AUTOCOPSER





The World's Most

VERSATILE QUILLER

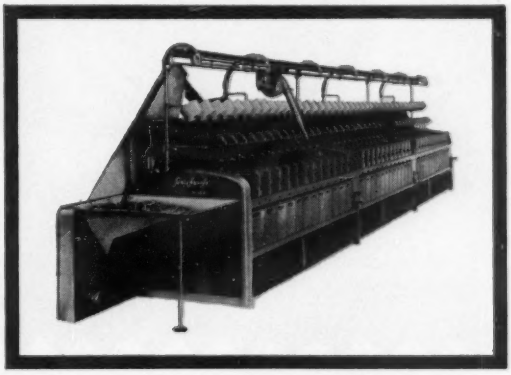
Textile Mills problem No. 1 in a buyers' market:

ONE STYLE TODAY . . . . . .

ONE HUNDRED STYLES TOMORROW . .

Only with the AUTOCOPSER in your quiller room can you follow the market trends at maximum efficiency, and lowest possible costs.

Write today to The Terrell Machine Co., Charlotte, N. C. for booklets explaining the outstanding features of the AUTO-COPSER!

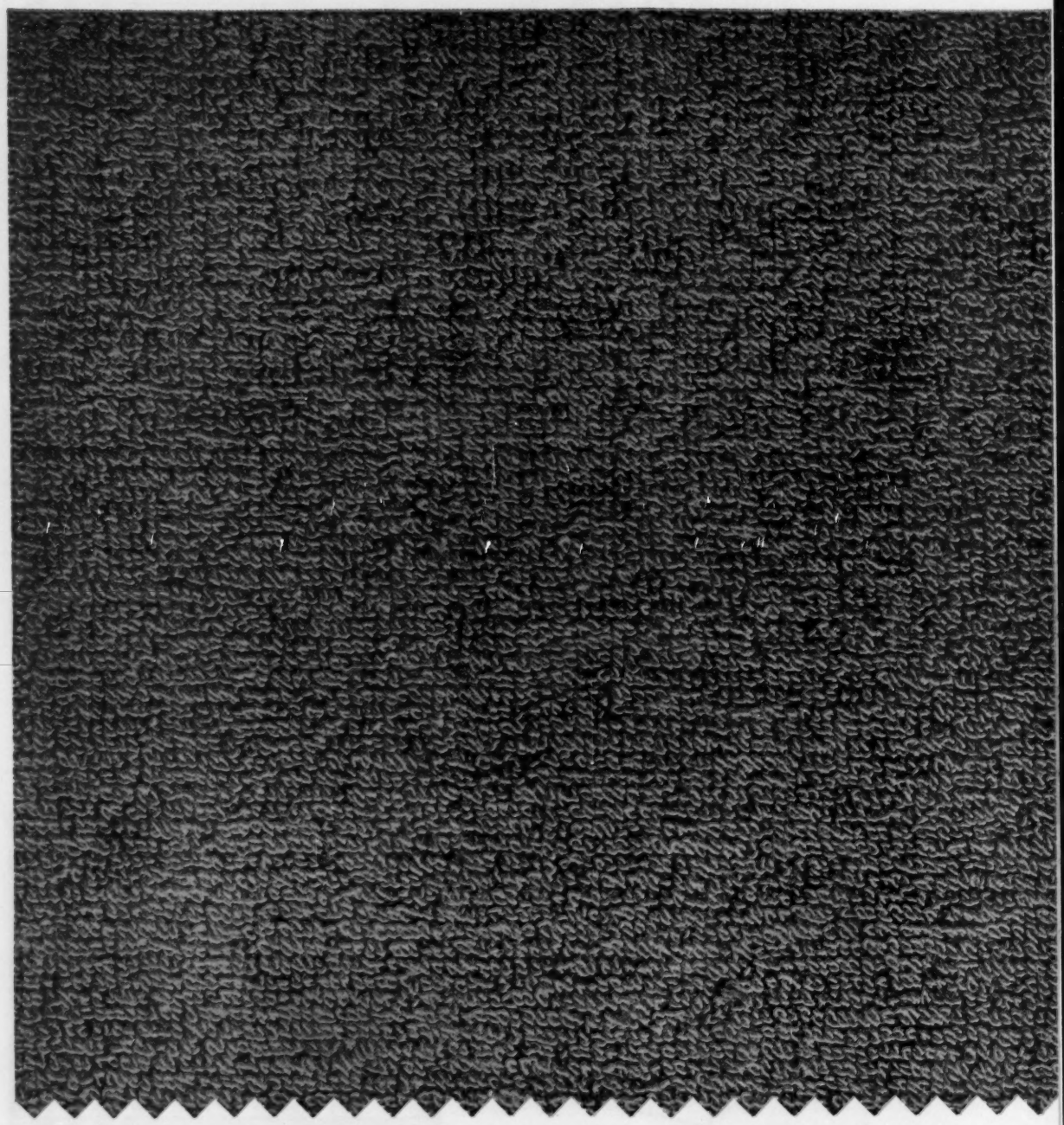


Schlafhorst

AUTOCOPSER

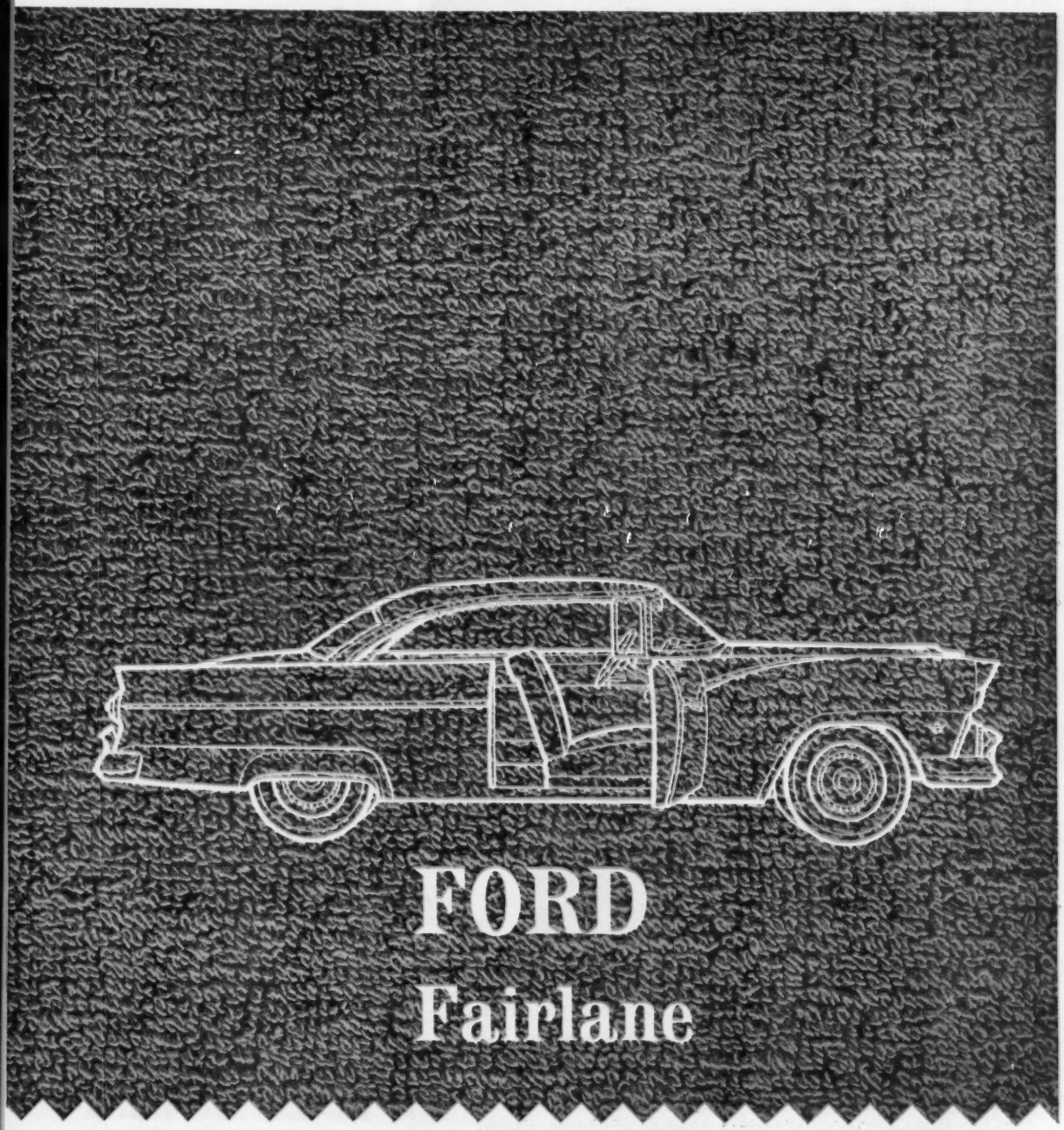
First Name in Automatic Quillers the World Over

SOLD AND SERVICED BY THE TERRELL MACHINE COMPANY, INC., 3000 S. BLVD., CHARLOTTE, N. C.



carpeting... a blend using

by Masland and by Mohawk



THE NEW Nylon Staple

Introduced less than a year ago, the NEW Nylon Staple by IRC is already in important use in America's most important industries. The biggest names in the automotive field are featuring blended carpeting using this uniquely different staple. Leading mills report that it is a better nylon staple in many ways. It has seven new and distinctive features capable of producing new and better effects.

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- **BRIGHTER LUSTER** • **BETTER CRIMP** • **GREATER RESISTANCE TO ABRASION**
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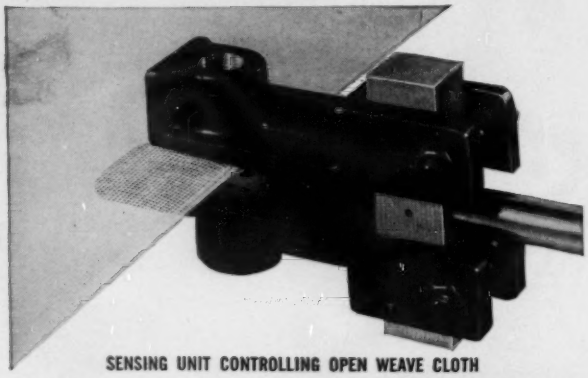
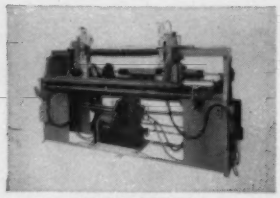
For further information use Handy Return Card, Page 171

ASKANIA
CLOTH GUIDE CONTROL

Nothing touches the cloth but a breath of air



SENSING UNIT CONTROLLING OPEN WEAVE CLOTH



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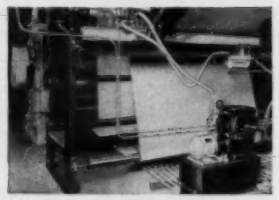
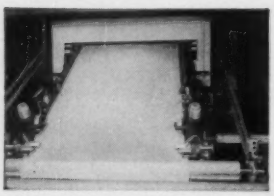
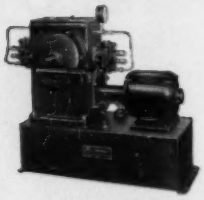


PIN TYPE TENTER



CLIP TYPE TENTER



CLOTH GUIDE REGULATOR

The Askania Cloth Guide Control has been tested on hundreds of applications—it's extremely fast, accurate and dependable. It guides fast moving webs with a breath of air. It's an ideal unit to solve your cloth guiding problems on Tenter Frames, Tubing Machines, Folding Machines, Examining Machines, Printing Machines, Slitting Machines, Labeling Machines or Rewinding Machines. Askania Cloth Guide Controls are establishing new standards in the finishing departments of hundreds of Textile Mills. If you have a cloth guiding problem—ask for Bulletin A-161, or call Askania engineers for full details.

ASKANIA REGULATOR COMPANY
260 E. Ontario Street, Chicago, Illinois
Subsidiary of General Precision Equipment Corp.

Shorts and Remnants

Brussells

Getting back to August, if you want to go to Australia for the International Wool Textile Research meeting or to Roanoke, Va., for the Southern Hosiery Manufacturers you can attend conventions this month. As this is written, old S&R has a fancy engraved invitation in French to a cocktail party, 29 Juin A 16,30 Heures dans les Salons du Palace Hotel A Bruxelles. Thanks to Societe Alsacienne de Constructions Mecaniques. S&R has a substitute in attendance as our boat sprang a leak and Brussells seems a long way to go to a saloon. (A lot of our good advertisers did go over for that Brussells Show.)

"Fibers for the Future"

Some folks are still reading "Fibers for the Future" Jan. '55. Reprint requests keep coming in. Additional requests are in hand from **T. K. Ramanathan,** Madurai, South India; **S. Kwiat & Co.,** Paterson, N. J.; **United States Testing Co.,** Hoboken, N. J.; **K. Blaak,** Algemene Kunstzijde Unie N. V., Asheville, N. C.; **Adamjee Cotton Mills, Ltd.,** W. Pakistan; **Boras Wafveri AB,** Sweden; **National Cotton Council,** Memphis, Tenn.

On the Bias Side

"We have been trying to locate a firm that manufactures bias cutting equipment for tubular fabrics. The problem in question involves the bias cutting of a tubular fabric approximately 57" in circumference. The bias cut is to be made at an angle approximately 45° so that the fabric, after it is cut, will be approximately 40" wide and in a continuous length, of course. . . . "

H. B. BECK
Wm. E. Hooper & Sons Co.
Baltimore, Md.

► Mr. Beck's problem turned out to be a good one—at this writing it is in the hands of Bias Binding Co., New York.

Cooperation and "Thank You"

"I am interested in obtaining copies of the following TI or a reprint of an article in each. The articles I am interested in are as follows. . . . "

CLIFFORD B. DENISON
J. P. Stevens & Co., Inc.
Greenville, S. C.

► Mr. Denison got five articles from '52 and '53, was nice enough to

How much does it cost you ...for "Sew-and-Sews"?

Too-frequent cloth defects . . . such as broken ends, broken picks, drag-ins, skips, and filling kinks *that have to be sewn* . . . can cause costly flaws in your profit-and-loss picture.

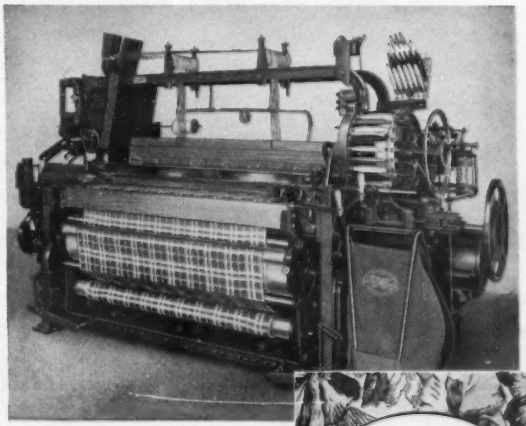
The more you have to sew . . . the less profit you have to show.

New C&K M-P Looms mean More Profit to any Mill!

. . . because they are the surest protection you can get against cloth defects. C&K's new line of Multi-Purpose Looms is built with many new features (*not* merely improvements on old features) that assure consistent top quality of cloth . . . as well as increased production and lower maintenance.

PLUS the vital, all-around protection of **M-P** Convertibility.

See C&K today . . . see how these **M-P** Looms give you **M**ore **P**rotection than you can get with any other weaving machinery.



This "Invisible Trademark" Stands Back of the Trademarks of the World's *Finest* Fabrics . . . which are **WOVEN** Fabrics.

Crompton & Knowles LOOM WORKS

WORCESTER 1, MASSACHUSETTS, U. S. A.

Philadelphia, Pa. · Charlotte, N. C. · Allentown, Pa.

Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.

Beetle-lite* Fiberglas Trucks Will Not Dent—Crack—Scratch Rust—Rot Snag

None of the usual . . . or the unusual . . . mill hazards will impair the looks or the efficiency of a Beetle-lite Fiberglas Truck. Strong continuous top and bottom steel reinforcements, completely enclosed heavy seamless molded Fiberglas body, make it practically indestructible. Color is molded in, thus eliminating the need for painting. Satin-smooth finish will not scratch and hence cannot snag. Beetle-lite is impervious to all dyes and chemicals used in mills.

Beetle-lite Trucks will save you money in any part of your mill. Made in 9 sizes, with or without drain bottoms. Write for full information today.

*Beetle-lite is the exclusive property of the Beetle Boat Co. and Beetle-lite trucks, doff and tote boxes, vats, crocks and tubs are sold exclusively to the textile trade in the United States and Canada by W. D. Dodenhoff Co., Inc.

W. D. DODENHOFF CO
INCORPORATED
GREENVILLE, SOUTH CAROLINA

Shorts and Remnants

write "Thank You," which we appreciate.

"Weaving Defects"

"Please send me 100 reprints of the article entitled 'Weaving Defects, Part 1' May '55. . . . "

G. L. KIRKPATRICK
Crown Cotton Mills
Dalton, Ga.

► "Weaving Defects" is slated to run for several months. Other readers have inquired about reprints; they may be made available at end of series. Sorry, we have none now.

"New Textile Fibers"

"We would appreciate it very much if you will send us ten copies of reprint entitled 'New Textile Fibers Created' (Oct. '53). Our friends in Europe are interested."

K. T. LOUIS
Otto Goedecke
Hallettsville, Texas

"Tail Wag the Dog"?

"As much as I like S&R I absolutely refuse to let the tail wag the dog to this extent. This is all the June issue I got. Please send the rest."

ANXIOUS
Westport, Conn.

► "Anxious" got only 16 pages of June—the rest came off in the mail in a new mailing system TI is trying. Most readers liked the new mailing, but "Anxious" and about a dozen others got only a cover or a few pages, so another idea is being tried this month. And so far as "Anxious" is concerned, his first 16 pages had offers of looms, motors, lubricants, paper tubes, chemicals, chrome plating, winders, nylon staple yarn, lubricators, more looms, comb boxes, coiler heads, roll covering, dyeing machines —not to mention a poem, a way to "Turn Beautiful," and story on a portable filter for family size swimming pool. What more could a man want?

Wants "Uniform Dyeing"

"Would you please send us a copy of the following article, 'Uniform Package Dyeing' (Apr. '54). . . . "

PETER VAN S. RICE
A. H. Rice Company
Pittsfield, Mass.

Permanent Pleats for Worsted

"On page 67 of the May issue of TEXTILE INDUSTRIES is an item 'Per-

Here's How HYSTER® *PLANNED* MATERIALS HANDLING SAVES TIME AND MONEY in textile mills

Here are typical examples of how Hyster Industrial Trucks are helping to make *tremendous* savings in materials handling costs in *textile mills.*

Whether you are now using lift trucks, or haven't ever used industrial trucks of any kind, your Hyster Dealer is ready to help you achieve cost reductions. Because he keeps abreast of the materials handling problems and improvements, he has helped many textile mills realize more profit from their operations. *Why not call him today* and take advantage *of his specialized services? Materials Handling Trucks from 1,000 to 30,000 pound capacities.*

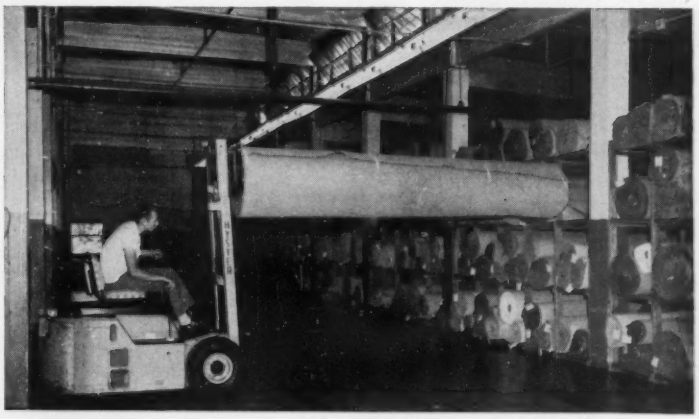
HYSTER DEALERS GIVE YOU ALL 3

1. PLANNING. Your Hyster Dealer will plan your materials handling operation from scratch — or will analyze your present system to see if it can be improved.

2. THE RIGHT TRUCK for *your* job from Hyster's complete line of industrial trucks (1,000-30,000 lbs) and over 100 job-attachments.

3. THE RIGHT SERVICE—ample spare parts stock, shop facilities, factory-trained mechanics and an efficient field service that keep your Hyster lift trucks going on your job, wherever your job might be located. Hyster trucks are noted the world over for their low downtime.

EASY MANEUVERABILITY OF HYSTER QN-20 LIFT TRUCK (2,000 lbs) with Load-Grab Job-Handling Attachment is demonstrated as it unloads bales directly from boxcar.



HYSTER QN-20 LIFT TRUCK with special roll handling attachment expedites movement of 9, 12 and 15-foot widths of carpet rolls. Carpet is cut to length directly on this polished floor. Hyster pneumatic tires are easy on floors.

HYSTER COMPANY

2902-57 N. E. Clackamas.....Portland 8, Oregon
1010-57 Myers Street.....Danville, Illinois
Hyster N.V. .....Nijmegen, The Netherlands

FOUR FACTORIES: Portland, Oregon; Danville, Illinois; Peoria, Illinois; Nijmegen, The Netherlands.

New Pneumafil Collector

Uses Specially Designed Allis-Chalmers Motor

The recently developed *Pneumafil* "Economizer" Collector System means a further improvement in spinning room conditions.

An important new feature is the provision for discharging the air around a 360-degree periphery of the discharge cover. Air is gently released in all directions through 224 specially designed vents. There are no disturbing drafts.

SPECIAL MOTOR

An important component is the special Allis-Chalmers motor. Engineers of both Pneumafil Corporation and Allis-Chalmers Mfg. Co. combined their experience in this design.

Note that the smoothly curving front end forms the inner wall of the venturi air channel, funneling the air into the fan. The smooth, unobstructed air flow in this design provides adequate cooling. Exposed punchings of stator core also assist in heat dissipation. Heavy duty, size 304 sealed bearings are used to cut maintenance.

SERVICE EVERYWHERE

Users of the new *Pneumafil* "Economizer" System are assured prompt, dependable service on these Allis-Chalmers motors. Certified Service Shops in all major textile areas provide factory-approved methods and parts. Allis-Chalmers, Milwaukee 1, Wisconsin.

A-4762

Other Allis-Chalmers Textile Drives

● SPINNING

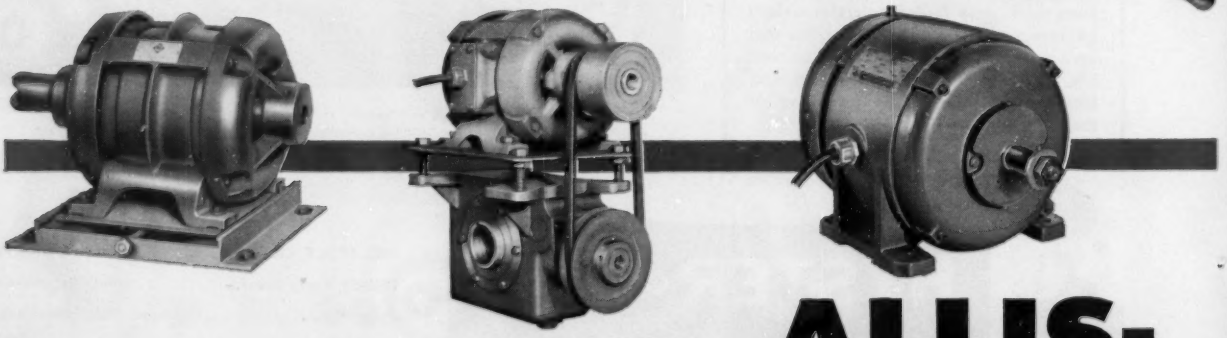
Wide-open air passages and powerful fans of *Quick-Clean* design sweep dirt and lint right through and out of these motors. Sealed, double-width bearings are used.

● CARD DRIVE

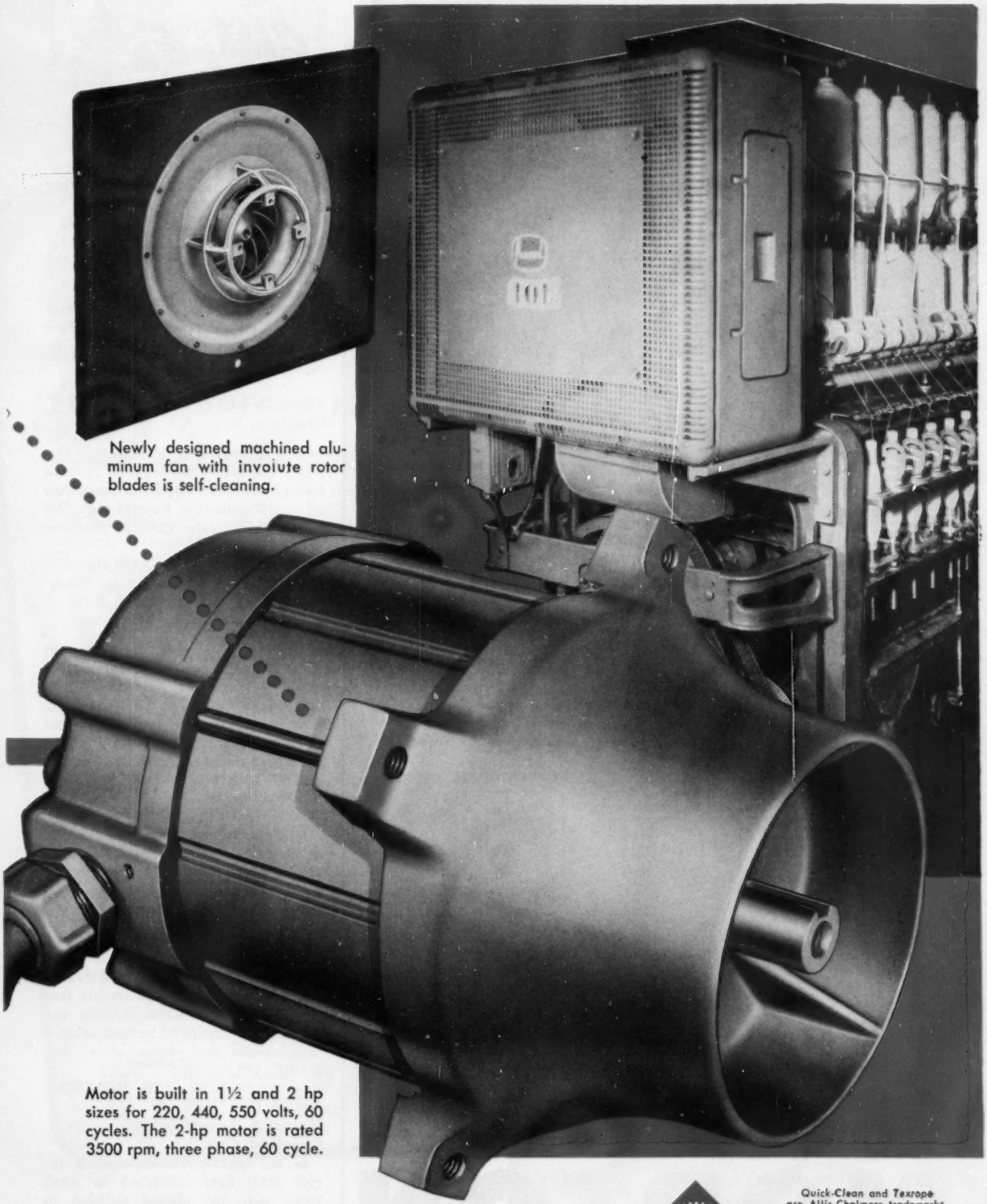
Allis-Chalmers combines a *Quick-Clean* motor, *Texrope* drive and an efficient gear reducer to make a compact, reasonably priced power-package for carding machines.

● WEAVING

Allis-Chalmers loom motor has oversize rotor, stator and bearings. Rotor diameter provides maximum inherent flywheel effect; slip produces minimum speed variation. External flywheel can be furnished.



ALLIS-



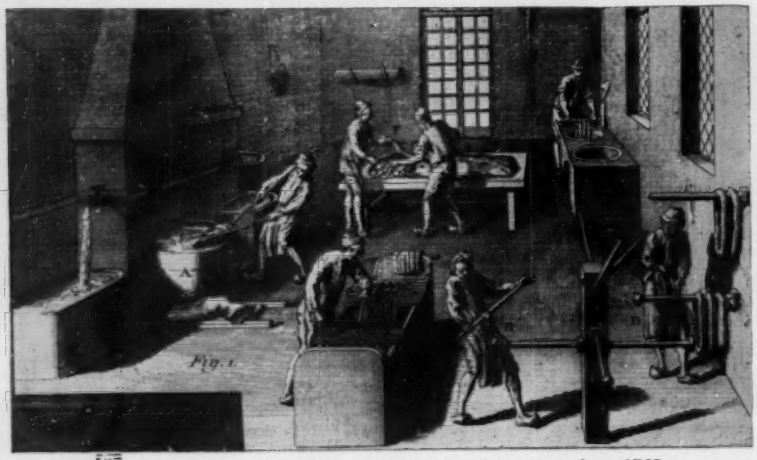
Newly designed machined aluminum fan with involute rotor blades is self-cleaning.

Motor is built in 1½ and 2 hp sizes for 220, 440, 550 volts, 60 cycles. The 2-hp motor is rated 3500 rpm, three phase, 60 cycle.

Quick-Clean and *Texrope* are Allis-Chalmers trademarks.

CHALMERS

A-C ALLIS-CHALMERS



Package Dyeing: Copper engraving, 1763

"THOSE DAYS ARE GONE FOREVER!"

Back in 1763 the age old art of dyeing had taken on all the aspects of a torture chamber. The old engraving above shows that at least seven people were required to do one job. Any time you begin to worry about production in your dyehouse, try to imagine what the output of the dyehouse pictured above might have been. *You think you've got troubles?*

Fortunately, however, "those days are gone forever." The modern dyehouse is a masterpiece of efficiency. Look at the MORTON System Stock Dyeing Machine installation below. This system is automatically controlled, requires minimum labor and produces outstanding results. It easily handles batches of four and five thousand pounds. The leading machine to dye acrylic and similar synthetic fibers in commercial lots at elevated temperatures, its construction is of any desired grade Stainless Steel.

MORTON SYSTEM STOCK DYEING MACHINES-MORTON MACHINE WORKS, COLUMBUS, GA.

THE MORTON SYSTEM DYEING MACHINERY

MORTON

MACHINE WORKS, INC.

COLUMBUS, GEORGIA **U.S.A.**

Shorts and Remnants

manent Pleats for Worsteds?.' Can you furnish us with any reference so that we may be able to find the details of Dr. Speakman's methods?"

HAROLD W. LEITCH
Pacific Mills
Lawrence, Mass.

Organic Complexing Agents

"We should like to have a reprint of the following article: 'Organic Complexing Agents in Textile Processing' (Dec. '51) . . . "

R. O. SIMPSON
Wica Chemicals, Inc.
Charlotte, N. C.

More "Flammable Fabrics"

"In the May 1954 issue of TEXTILE INDUSTRIES there appeared an article on the Flammable Fabrics Act. We would appreciate getting two reprints. . . . "

ROLAND DUNN
Pur. Agt., Mohawk Carpet Mills, Inc.
Amsterdam, N. Y.

Wool Cleaning

"Would you please send additional information on the wool cleaning machine . . . (page 213, Apr. '55) . . . We also would be interested in meeting a representative of this company and determining whether any installations have been made in the United States."

THEODORE WILLIAMSON, JR.
Excelsior Mills
Union, S. C.

► This inquiry sent to Leslie A. Field, 230 Princeton Blvd., Lowell, Mass., who sells wool processing equipment of A. Thibeau & Co., Turcoing, France.

Straightening FF Needles

" . . . some years ago you ran a series of articles on straightening needles. It is my understanding that these articles included specific and pertinent information, as well as some very clear and informative diagrams. . . "

H. B. HUNTER
Textile Div.,
Warner & Swasey Co.
Cleveland, Ohio.

► We had so many requests for this data, first published in April 1930, that we almost decided to change our name to "Needle Straightening Review." Even the needle folks liked it. We did it again in Sept. '46. Did you still miss it?

► Odds and ends — a German

ALSiMAG®

193

ELECTRICALLY CONDUCTIVE

THREAD GUIDES IN SATIN FINISH

AlSiMag guides are used by every large producer and most major processors of synthetic yarns. Two trends in guides are now evident.

SATIN FINISHES. Most mills processing synthetic yarns have found the SATIN FINISH most satisfactory. Reason: the satin finish gives lighter contact between yarn and guide. Lighter tension means better yarn control, better and faster handling and less generation of static electricity.

ELECTRICAL CONDUCTION. Satin finish cuts down but does not eliminate static on some processes. Electrically conductive guides, properly grounded, will bleed off the remaining static in these processes.

ALSIMAG 193 electrically conductive guides in satin finish meet these requirements. TEST SAMPLES FROM OUR FILES ARE SENT ON REQUEST. The illustration shows only a small part of the designs available.

P.S. ALSIMAG 192 (usually considered our standard material) and ALSIMAG 513 (our hardest, strongest, longest wearing material) also solve many guide problems. Any ALSIMAG guide is available in either the satin or polished finish.

54TH YEAR OF CERAMIC LEADERSHIP

AMERICAN LAVA CORPORATION

A Subsidiary of Minnesota Mining and Manufacturing Company

CHATTANOOGA 5, TENNESSEE

SALES ENGINEERS: NORTH EAST: Jay S. Gosnell, 671 Broad St., Newark, N. J., Mitchell 2-8159. NORTH CENTRAL: Minnesota Mining & Mfg. Co., 367 Grove St., St. Paul 1, Minn., Cedar 3071. NORTH WEST: Minnesota Mining & Mfg. Co., 320 Shaw Rd., S. San Francisco 10, Calif., Plaza 6-0800. SOUTHERN CALIFORNIA: Warren L. Thompson, 5603 N. Huntington Dr., Los Angeles 32, Calif., Capitol 1-9114. SOUTH CENTRAL: John A. Green, 6815 Oriole Dr., Dallas 9, Texas, Dixon 9918. SOUTH EAST: Joe E. Spearman, American Lava Corp., Chattanooga 5, Tenn., 5-3411. ALL OTHER AREAS: J. B. Shacklett, American Lava Corp., Chattanooga 5, Tenn., 5-3411. CANADIAN REPRESENTATIVE: Ian M. Haldane & Co., P. O. Box 54, London, Ontario. CONTINENTAL EUROPEAN REPRESENTATIVE: P. C. Huguenin Luzern, Gerbergasse 6, Luzern, Switzerland.

ORDERS FROM HUNDREDS OF DIFFERENT PROCESSORS OF SYNTHETIC YARNS SHOW TWO MARKED TRENDS IN THREAD GUIDES

1. SATIN FINISHES 2. ELECTRICAL CONDUCTION

These clearers were removed from a frame after Accotex NO-742-S Cots were run alongside cots of another kind for five hours. Board at right shows how NO-742-S Cots pack waste well back on clearer. At left, clearer shows serious eyebrowing permitted by other cots. Clearer covers were dyed black to get contrast between waste and cover.

Simple "Cover-to-Cover" test proves NO-742-S Cots resist grooving, spin top-quality yarn

Lift a pair of rolls off your frames, and hold them up to the light, cover-to-cover. If you see daylight between covers, cots are hollowed out and yarn control probably is faulty. When no light shows between cots, re-buffing is not needed. Eyebrow-resistant Armstrong NO-742-S Cots won't show light even after months on the frame.

EVEN WITH SHORT STAPLE FIBERS, NO-742-S ACCOTEX® COTS PREVENT SERIOUS EYEBROWING

One look at the boards above and you'll *know* why so many mills today use Armstrong NO-742-S Cots with flat clearers. With normal picking schedules, these cots eliminate troublesome eyebrowing . . . even after months of spinning. As a result, yarn irregularities and ends down caused by eyebrows are cut to a minimum.

You get this kind of performance from NO-742-S Cots because of their exclusive "constant friction" surface. This unique drafting surface has just the bite needed to pick up loose fibers and pack them well back under the clearers.

NO-742-S Cots also *stay rough* as they wear . . . and resist slicking or glazing. That's why they give consistently strong, clean yarn with as little as a single re-buffing per year.

Next time your Armstrong representative calls, ask him to help you set up test frames of NO-742-S or write us direct. It won't take you long to see the difference they make in controlling eyebrowing.

Send for the booklet, "Armstrong Textile Roll Coverings and Mill Supplies," and information on other Accotex® Cots. Write Armstrong Cork Company, Industrial Division, 6508 Ivy St., Lancaster, Penna.

Armstrong ACCOTEX COTS

. . . used wherever performance counts

STOP THE THREAT OF CORROSION WITH TRUSCON SPEED REX

PROVIDES TOUGH, RESISTANT PAINT FILM FOR METAL, WOOD OR CONCRETE SURFACES!

TEXTILE manufacturers are using "Speed Rex" to lick corrosion problems caused by condensation. "Speed Rex" is the *toughest* all-purpose coating ever formulated for painting machinery, tools, conveyors, benches, guard rails and most other plant equipment.

AND "Speed Rex" resists *hard knocks* as well as moisture and chemicals. You paint less often when you standardize on "Speed Rex" because rough, tough physical abuse bounces off the rugged hide of this protective coating.

THE reason "Speed Rex" can take so much punishment is Devran . . . an Epoxy Resin that gives paint greater wear-ability and resistance to acids, alkalis and moisture.

GET full information on how to solve condensation problems and other painting problems in the textile industry. Send coupon today!

TRUSCON Laboratories
Division of Devoe & Raynolds Co., Inc.

TRUSCON LABORATORIES
Box 69, Milwaukee Junc. P.O., Dept. T-8
Detroit 11, Michigan

Please send details about Speed Rex

NAME_____

ADDRESS_____

CITY_____ ZONE_____ STATE_____

Shorts and Remnants

fashion show at Krefeld displaying synthetic fiber creations was held 2600 feet down in a salt mine. Some of the cotton and wool boys would say that's only about half deep enough. A mill friend says those Eriez magnets are good things; when he loses a wrench or screwdriver, he finds it sticking to the magnet.

Watch out for the Wet Processing—dyeing, bleaching and finishing, etc.—special coverage next month and for the story on the AATCC 1955 Convention. Current news releases show both the Piedmont and the Southeastern Sections of this Association setting up scholarships for worthy textile chemical students. A current appeal in the American Dyestuff Reporter by **Raymond Jacoby** of Ciba Co., Inc., encourages further participation of mills, mill dyers, chemists, etc., in the work of the AATCC. That's a fine idea. It's the mill who ultimately benefits, but the organization is still heavy on the dyestuffs and chemicals end. . . . Lots of textile headlines these days, between claims that mergers have made big business out of the industry and have hurt textiles in general and claims on the part of the mills that lowered tariffs are destroying the industry. We will solve the latter question. All you have to do is set up a minimum wage law in competing textile countries. That will give them money enough to buy the textiles they are turning out and save all that trouble and cost of shipping it to the U.S.A. That solves the economic question.

Historical Highlight. George Washington, the father of his country, has his picture on the one dollar bill, but we'll bet you can't tell without looking in your pocket whose picture is on the one hundred thousand dollar bill. It's Woodrow Wilson, and you can check up on us if you don't think that's right. We guess that puts George in his place.

Personal NOTES ABOUT MEN YOU KNOW

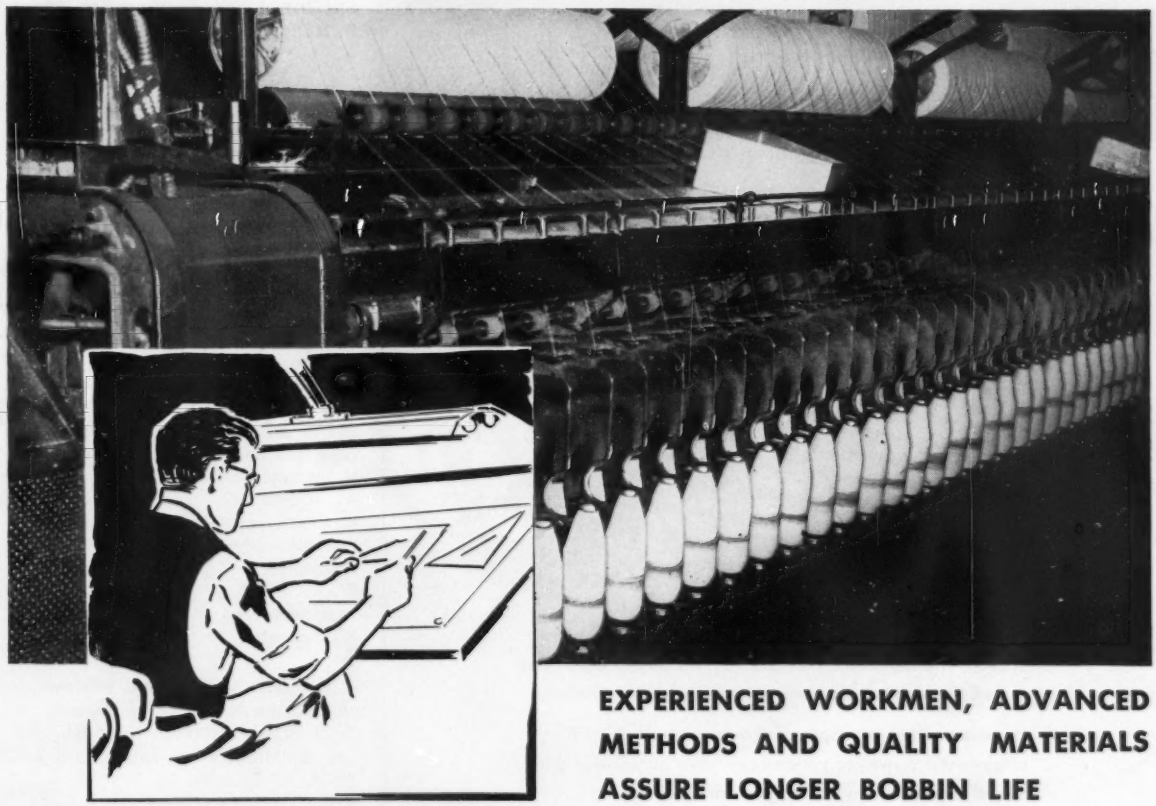
Newly elected officers of the Piedmont Section of the American Association of Textile Chemists and Colorists are: chairman, **Clarence Hooper** of Burlington Industries, Greensboro, N. C.; vice-chairman, **Clement C. Stevenson,** Ciba Co., Inc., Greenville, S. C.; treasurer, **J. C. King,** Fairforest Co., Spartanburg, S. C.; councilors, **Herman J. Jordan** of Piedmont Processing Co., Belmont, S. C., and **Francis Burr** of Burlington Industries, Greensboro.

R. M. Cushman, executive vice-president of Amerotron Corp., has been placed in charge of all manufacturing, assisted by three area managers as follows: vice-president **Albert E. Otto,** manager of Area A; vice-president **Frank Roberts,** manager of Area B with headquarters at Aberdeen, N. C.; vice-president **Al Grant,** manager of Area C with headquarters at Anderson, S. C. **E. H. Hines,** formerly general manager of Excelsior Mills in Pendleton, S. C., recently joined the organization as group manager of the worsted and worsted blend manufacturing and finishing operations at the Raeford, Raleigh, Puritan, and Clarksville plants. **Arthur Phillips,** in addition to supervising the activities as group manager of the Williamston rayon, Williamston throwing, Peerless and Honea Path plants, also has under his supervision the Hartwell, Ga., plant. **H. Bard** supervises the Southside, Riverside, and Ladlassie plants of the corporation.

Thomas S. Tolar, a vice-president of Burlington Hosiery Company, has resigned from that position to accept a vice-presidency in Burlington Industries, Inc., the parent organization. In his new capacity, Mr. Tolar has broad manufacturing staff responsibilities as well as direct responsibilities for related service areas. His headquarters are at the firm's executive offices in Greensboro, N. C. * * * Succeeding Mr. Tolar as vice-president of Burlington Hosiery is **Thomas B. Sain** who was formerly manager

True, "Free-Running" Bobbins

Made to YOUR Specifications



EXPERIENCED WORKMEN, ADVANCED METHODS AND QUALITY MATERIALS ASSURE LONGER BOBBIN LIFE

VERMONT SPOOL AND BOBBIN COMPANY can fill your every order to fit your exact requirements. Specially trained and long experienced workmen guarantee tailor-made results . . . and your complete satisfaction. VERMONT bobbins, with their uniquely crimped built-in bushings, are made from kiln-dried hard rock maple . . . and their many quality features add up to longer and more useful bobbin life—with savings in time and money for you.

Contact your nearest VERMONT Spool and Bobbin representative and discuss your requirements with him. He will explain to you how you can save with all the superiorities of Vermont products . . . yet at an amazingly low first cost!

5 Features You Want

- **Longer Life**
- **True, Free-Running**
- **Brass Bushings**
- **Skilled Workmanship**
- **Competitive Price**

Represented in the East by Atkinson, Haserick & Co., Boston 6, Mass., and Watson & Desmond, P. O. Box 1954, Charlotte, N. C.

Vermont SPOOL AND BOBBIN CO.

234 SO. CHAMPLAIN ST. — BURLINGTON, VERMONT — *SUPERIOR SPOOLS AND BOBBINS SINCE 1906*

This live roller conveyor packing line is fed by strategically placed spurs running from every packing station. The moment a box is filled, it's on the way (and out of the way) to shipping or storage without delay.

Here is another example of the many ways ALVEY engineered conveyor systems can save manpower and speed production in your plant. For more ideas, we will be happy to send a textile-experienced ALVEY engineer to visit your plant and make suggestions. Simply drop us a line.

Every time you MANhandle a product, you add to its cost... *without* adding to its value.

So, for profit's sake... convey your products.

ALVEY

ALVEY CONVEYOR MANUFACTURING COMPANY

9306 Olive Street Road, St. Louis 24, Missouri

Branch Offices in Principal Cities

177

Personal NOTES ABOUT MEN YOU KNOW

of the hosiery company's seamless division. Three other recently appointed vice-presidents of the hosiery company are: **Charles E. Crutchfield,** manager of men's hosiery manufacturing; **Grover C. Furr, Sr.,** manager of full-fashioned knitting; and **Joseph P. Kelly,** hosiery technical director.

L. L. Jones, Sr., recently resigned as president of Canton (Ga.) Cotton Mills and is now chairman of the executive committee as well as treasurer. Elevated to the position of president was **Louis L. Jones, Jr.,** who had been serving as vice-president, secretary, and assistant treasurer of the organization. **Floyd R. Cooper,** controller and assistant treasurer, was given the additional responsibilities of secretary of the company.

J. L. James has resigned as manager of the Cooleemee, N. C., plant of Erwin Mills, Inc. **C. W. Howell** has been promoted from superintendent to manager, replacing Mr. James. **M. A. Carpenter,** formerly assistant superintendent, has been made superintendent. Director of finishing at Cooleemee is **C. D. Griggs,** with **W. R. Wands** and **A. J. Tokarz** manager and superintendent of the finishing plant, respectively.

Arthur G. Corkery has resigned as vice-president and sales manager of Spun Fibers, worsted spinning division of American & Efird Mills, Mt. Holly, N. C.

W. B. Dixon Stroud has resigned as vice-president in charge of woolens, worsteds, and finished synthetics at Deering, Milliken & Co., Inc., and, according to the announcement, his position will not be filled. Instead, the following personnel changes have been made: Full responsibility for operation of the Cowan Mill in Lewiston, Me., and the Farnsworth Mill in Lisbon Center, Me., has been given to Joseph Meehan who was formerly manager under Mr. Stroud. The Abbeville (S. C.) Mills Corp. plant and The McCormick (S. C.) Spinning Mill, Inc., are now under the direction of vice-president **Alan B. Sibley** who is also in charge of all of the company's synthetic mills. General manager of the McCormick group of mills, which includes The McCormick Spinning Mill, Inc., Johnston (S. C.) Mills,

Picker Overhauling Is Simple When You Depend On . . .

Aldrich Repair Service

We furnish skilled men for reworking pickers, and can deliver to these men any needed parts within 24 hours in most southern states, and within 48 hours to almost any cotton mill in the United States. This makes thorough overhauling a simple matter. Anything needed for a good job can be had at once, while the machine is down for repairs.

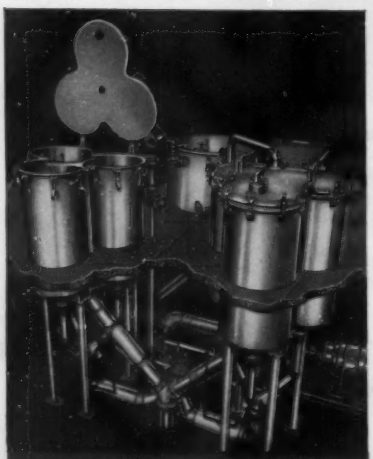
If you do your own overhauling, this speedy delivery service is just as valuable. You don't have to wait for repair parts — they are there when you want them.

We manufacture and install complete blending, opening, and picking systems for cotton and synthetics, and cleaning systems for cotton.

AldricH MachinE WorkS

Greenwood, South Carolina

...that's when this absolutely LEVEL DYEING "pays off"!



An exclusive method of cushioning the shock of flow reversal... plus our own pump design to obtain high flow at moderate pressure... reduce danger of "blown" beams.

Quality in denim, chambray, gingham and similar fabrics, depends greatly upon *uniform color*. This can be achieved only with *yarn* of uniform color . . . yarn without the slightest variation in shade. The Smith-Drum Beam and Package Dyeing Machine is designed to *insure absolutely level dyeing* of a complete set of beams or packages.

Level dyeing is possible *only* when all beams or packages in the same lot are dyed simultaneously in the *same bath!* This Smith-Drum Machine dyes from 2 to 6 beams or yarn carriers under identical conditions of liquor ratio, flow, pressure and temperature . . . with uniform distribution of additions to the dye bath.

If you are interested in truly uniform dyeing results, economy in operation and saving in floor space, it will pay you to discuss this machine with one of our representatives.

SMITH, DRUM & COMPANY

432 W. Allegheny Avenue, Philadelphia 33, Pa.

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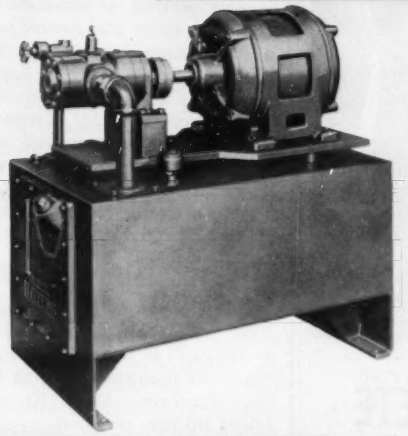
BETTER products FASTER

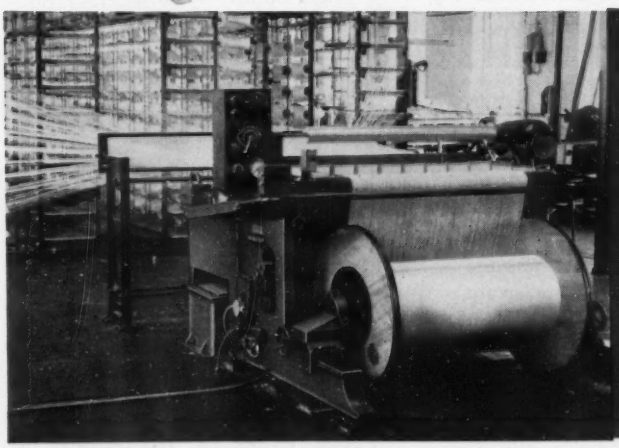
When Your Textile Machinery has

VICKER **Hydraulic Power Units**



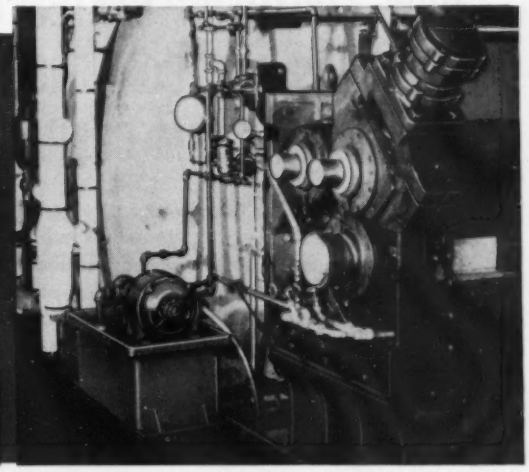
Dependable and practically maintenance-free, Vickers Hydraulic Power Units are a compact self-contained power source for hydraulic systems on a wide variety of textile machinery. They frequently simplify design and save installation costs. Many are standard stock units while others are individually designed for the machines they serve.

Vickers Hydraulics has numerous additional advantages for the user and the builder of textile machinery. Note applications below and then ask our nearest Application Engineering Office for a copy of Textile Bulletin 54-66.



WARPING UNIT

Delivers larger warps of uniform density. Stepless control of beam against press roll prevents scuffing. Vickers Hydraulic System is completely adjustable to meet all conditions. Accommodates beam heads up to 40" diameter.



HIGH TEMPERATURE CONTINUOUS DYEING MACHINE

Provides faster continuous dyeing by dye bath at temperature above atmospheric boiling point in pressure vessel. Cloth passes in and out between rolls that form pressure seal. Nip pressure between rolls is provided and held uniform by Vickers Hydraulics.

FOR FURTHER INFORMATION *Ask For* BULLETIN 54-66

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Engineers and Builders of Hydraulic Equipment Since 1921

HOW SOUTHERN STATES COMPLETE COILERS AND CONVERSION UNITS CUT CARD ROOM OPERATING COST

Mill case histories prove over and over that Southern States coiler conversions pay for themselves in less than a year!

Adding up to lower operating costs and savings you can see are—larger cans with increased capacity . . . renewed life of old coilers, longer life of new coilers . . . lower maintenance costs . . . smaller parts inventories . . . simplified, more efficient handling . . . plus improved quality.

Recognizing that each mill is faced with different problems, Southern States has produced the most complete line of coiler and coiler conversion units available to the industry. Thus, regardless of sliver handling methods, or condition of existing equipment, Southern States makes it possible for your mill to enjoy all the advantages of larger cans at a price you can afford.

Complete details are in our Bulletin 201, which we'll send on your request. Better still, let our representative show how Southern States conversions can cut your card room costs.

SOUTHERN STATES
EQUIPMENT CORP.
HAMPTON, GEORGIA

Personal NOTES ABOUT MEN YOU KNOW

and the Excelsior Mills finishing plant in Pendleton, S. C., is **George Asnip** who was formerly general manager of the Laurens (S. C.) Mills. Succeeding Mr. Asnip at Laurens is **J. M. Jackson** who was formerly general superintendent at Gaffney (S. C.) Mfg. Co. **Harold B. Risher,** manager of the Excelsior Mills finishing plant, is also serving as assistant general manager under Mr. Asnip. In charge of production control and planning for Mr. Asnip's group is **J. H. Cross** who had a similar position at Judson Mills. Succeeding Mr. Cross at Judson is **John Conway** who was formerly in charge of cotton production planning. Filling the vacancy created by the promotion of Mr. Conway is **Marion E. Wright** of the cost department.

Paul Boehm, formerly manager of Ames Worsted Co.'s Southbridge, Mass., mill, is now vice-president in charge of manufacturing at the Bell Co., Worcester, Mass. He succeeds James Busher, resigned.

Paul A. Bonsaint, who has been with Amoskeag Mills, Manchester, N. H., is now manager of Rock Ridge Worsted Mills, Centreville, R. I.

C. Mason Aldrich, formerly superintendent, is now president and treasurer of Braided Fabric Co., Providence, R. I., succeeding E. P. Perkins. **Philip C. Harrington** is now superintendent.

Ralph J. Brysson, formerly research scientist with the Naval Research Laboratory, Washington, D. C., recently joined the staff of the Southern Regional Research Laboratory, New Orleans, La., as chemist in the cotton chemical processing section.

Emerson Bullard, who has been in charge of Coats & Clark Inc.'s southern mills, has returned to Pawtucket as manager.

Recently elected to membership in ANAK, the top student and alumni honorary society at the Georgia Institute of Technology, were: **Norman E. Elsas,** chairman of the board, Fulton Bag & Cotton Mills; **Forbes Bradley,** president of the Columbus Manufacturing Co., Columbus, Ga.; **Paul**

McKinney, chairman of the board, Swift Manufacturing Co., Columbus, Ga.; and **R. Donald Harvey,** general manager, Pepperell Manufacturing Co., Lindale, Ga.

Now serving as president of the national Tufted Textile Manufacturers Association is **Eugene T. Barwick** of the Barwick, Monarch, and Morrill rug and carpet mills at Dalton and Lafayette, Ga. Vice-presidents elected during the association's annual meeting were: **J. Raymond Bates** of J. C. Bates Candlewicks, Dalton; **W. H. Sparks** of Sparks, Inc., Dalton; **M. W. Wiesen** of Lawtex Corp., Dalton; and **W. H. Griffin** of Griffin Rug Mills, Dalton.

Earl Delahunt, formerly superintendent of weaving at Monument Mills, Inc., Housatonic, Mass., is now manager of Standish Mills, Esmond, R. I. He succeeds **George Calvert** who is retiring because of ill health.

Rene De Lathenwer, formerly with the Wood Mill of American Woolen Co. in Lawrence, Mass., is now superintendent of M. & F. Worsted Co., Providence, R. I. He succeeds **Leon LeMaine, Jr.,** who is now associated with Collins & Aikman Corp. **Stephen L. Mascena** is assistant superintendent.

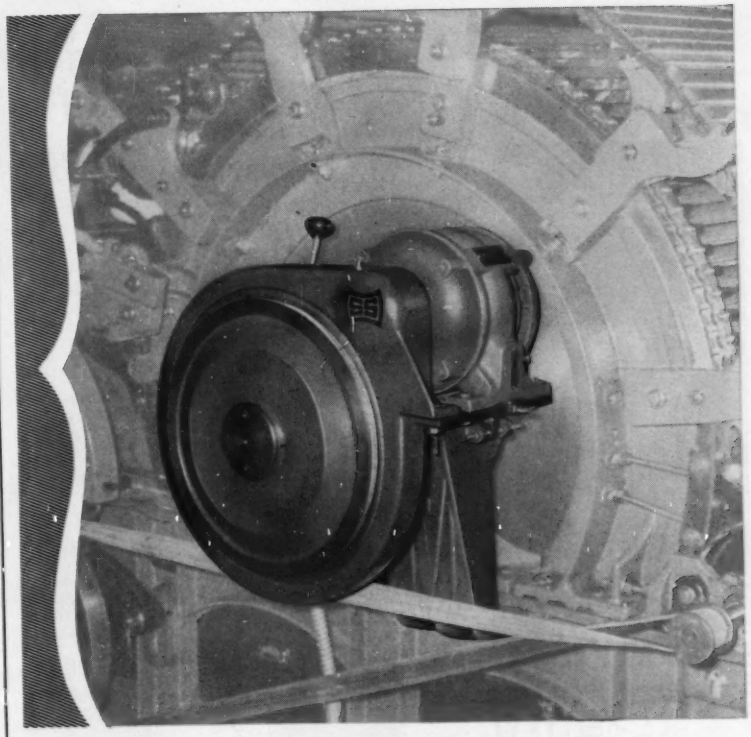
Herman A. Dickert, director of the A. French Textile School at Georgia Institute of Technology, has been awarded an honorary Doctor of Science degree by Newberry (S. C.) College, his alma mater.

Oswald Fauteux is manager of Javian Yarn Mill, Fall River, Mass., having resigned as superintendent of Maplewood Yarn Mills, Fall River, Mass.

The election of **Robert A. Harris** as secretary and treasurer of Fieldcrest Mills, Inc., Spray, N. C., has been announced. Mr. Harris succeeds **J. C. Walsh** who has resigned. Named as assistant secretary to report to Mr. Harris, who joined Fieldcrest in 1946, was **W. B. Lucas.**

W. R. Fiske has resigned as superintendent of The McCormick Spinning Mill, Inc., in McCormick, S. C., and returned to Dan River Mills, Danville, Va., where he was employed prior to coming to McCormick.

Nelson F. Getchell of the National Cotton Council of America has been appointed a collaborator of the USDA



SOUTHERN STATES MAKES POSSIBLE INDIVIDUAL CARD DRIVE BENEFITS WITHOUT CHANGES IN PROCEDURE

Your mill can enjoy the advantages of individual card drives *without changing carding or stripping procedures.* An EXCLUSIVE Southern States feature makes this possible. A standard-diameter grooved pulley, an integral part of the main drive, permits stripping in the usual manner. *No separate stripping device is needed.* The operation is simpler, quicker, and safer.

Important to cost-conscious mill men, the Southern States Individual Card Drive *meets both budget and operational requirements.* It is priced low enough to justify the elimination of card room lineshafting and belting with their inherent hazards and headaches.

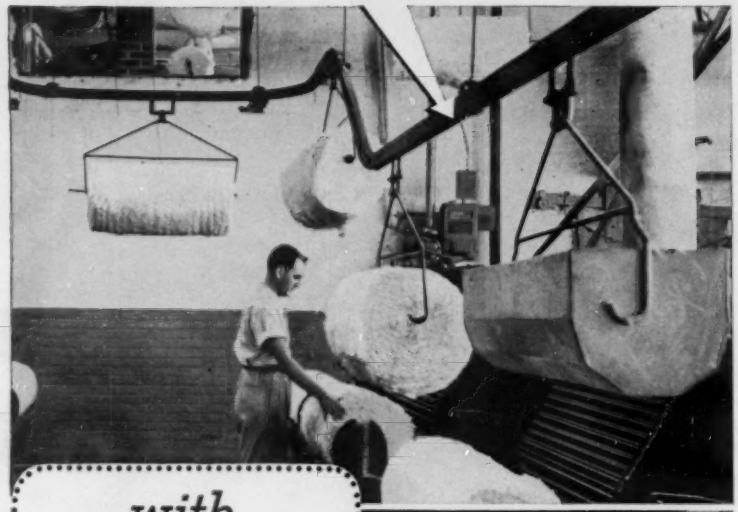
It is a packaged unit, easily and quickly installed. Mounts direct to card frame. No complicated reduction unit or overhung load on cylinder shaft. Occupies about the same space as flat-belt drive. Leaves flats clear and eliminates danger of springing arches or damage to flats due to vibration.

Write for our Bulletin No. 200, or get the facts from your nearest Southern States representative.

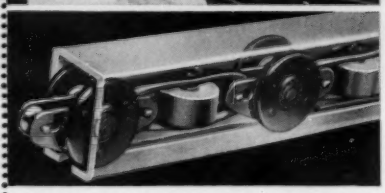
SOUTHERN STATES
EQUIPMENT CORP.
HAMPTON, GEORGIA

For further information use Handy Return Card, Page 171

R-W quality means longer, safer, more efficient service



with R-W "Zig-Zag"® Continuous Power Conveyors



From the tiniest component to the overall design, Richards-Wilcox ZIG-ZAG Continuous Power Conveyors conform to the most rigorous quality standards. And higher quality pays for itself in the long run with more years of safer, lower-cost service.

Years of trouble-free service . . . more efficient use of plant personnel . . . elimination of bottlenecks . . . are some of the many benefits that R-W ZIG-ZAG Conveyors offer. They take materials handling *overhead*, out of the way, carrying loads up, down, in, out and around, "like water through a pipe". Six-inch pendant centers handle any load a man can lift in continuous production. A choice of drive units permits travel at any required speed with variations of 10 to 1 or better.

ZIG-ZAG Conveyors are unusually flexible, too. When changing conditions require alteration, expansion or relocation of systems, the job can easily be done by plant personnel, usually without waste of a single part.

Quality makes a difference . . . in longer service, more efficient production, lower costs. And quality means Richards-Wilcox ZIG-ZAG Continuous Power Conveyors.

For full information write for Catalog No. A-93

75 YEARS of QUALITY and SERVICE for RICHARDS-WILCOX AURORA, ILLINOIS 1880 1955

Richards-Wilcox Mfg. Co.
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446 W. THIRD STREET, AURORA, ILL. SLIDING DOOR HANGERS & TRACK • FIRE DOORS & FIXTURES • GARAGE DOORS & EQUIPMENT • INDUSTRIAL CONVEYORS & CRANES • SCHOOL WARDROBES & PARTITIONS

Personal NOTES ABOUT MEN YOU KNOW

Southern Utilization Research Branch to confer with staff members on research to improve and extend the utilization of cotton.

New superintendent of the Greenwood plant of Greenwood (S. C.) Mills is **Robert A. Liner** who has been with the company since 1943 and has recently been serving as assistant superintendent at the Ninety Six plant. Mr. Liner succeeds **J. T. Ficklin** who resigned.

R. Philip Hanes, Jr., and **J. R. Durham, Jr.,** were recently named vice-presidents and elected to the board of directors of Hanes Dye & Finishing Company, Winston-Salem, N. C.

Serving as head of the American Cotton Manufacturers Institute's foreign trade committee is **R. H. Jewell,** vice-president of Crystal

Mr. Jewell

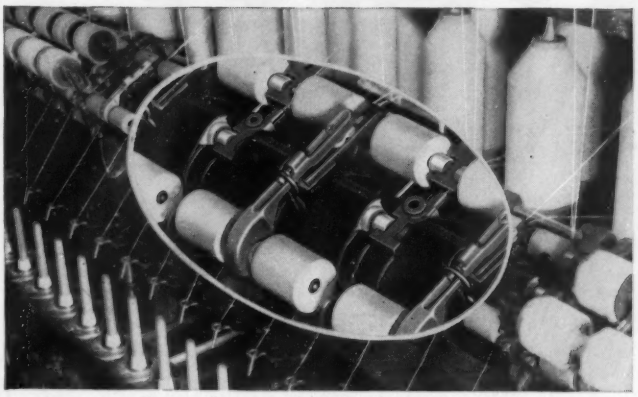
Springs Bleachery, Chickamauga, Ga. This committee is concerned with legislation and national policy affecting cotton textiles in world commerce.

Merwin R. Haskel, a director and formerly treasurer of the company, has been elected executive vice-president of United Merchants & Manufacturers, Inc.

Dr. Percy Hodgson, president and treasurer of Parkin Yarn Mill, Inc., Pawtucket, R. I., was one of five men on which honorary degrees were conferred by Bradford Durfee Technical Institute during the commencement exercises held last June.

Ralph L. Howland occupies the newly created position of manager of

(Continued on page 36)



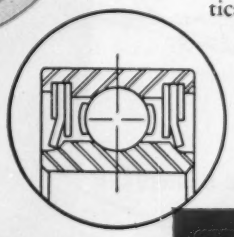
Close-up illustration of Fafnir Ball Bearing equipped Dixon Saddle Guide in operation.

New, Fafnir-equipped DIXON SADDLE GUIDE modernizes drafting at lowest cost

By providing a low cost, better way to weight and guide top rolls, the Dixon Saddle Guide is earning widespread acceptance throughout the textile industry. According to the Dixon Corporation of Bristol, Rhode Island, it is the culmination of eight years' intensive research and experimentation.

Designed especially to function with the Saddle Guide is a front top roll equipped with a Fafnir Teflon-Sealed Ball Bearing. The specially-lubricated Fafnir ball bearing reduces drag, cuts power consumption, resists wear, and prevents the entrance of lint.

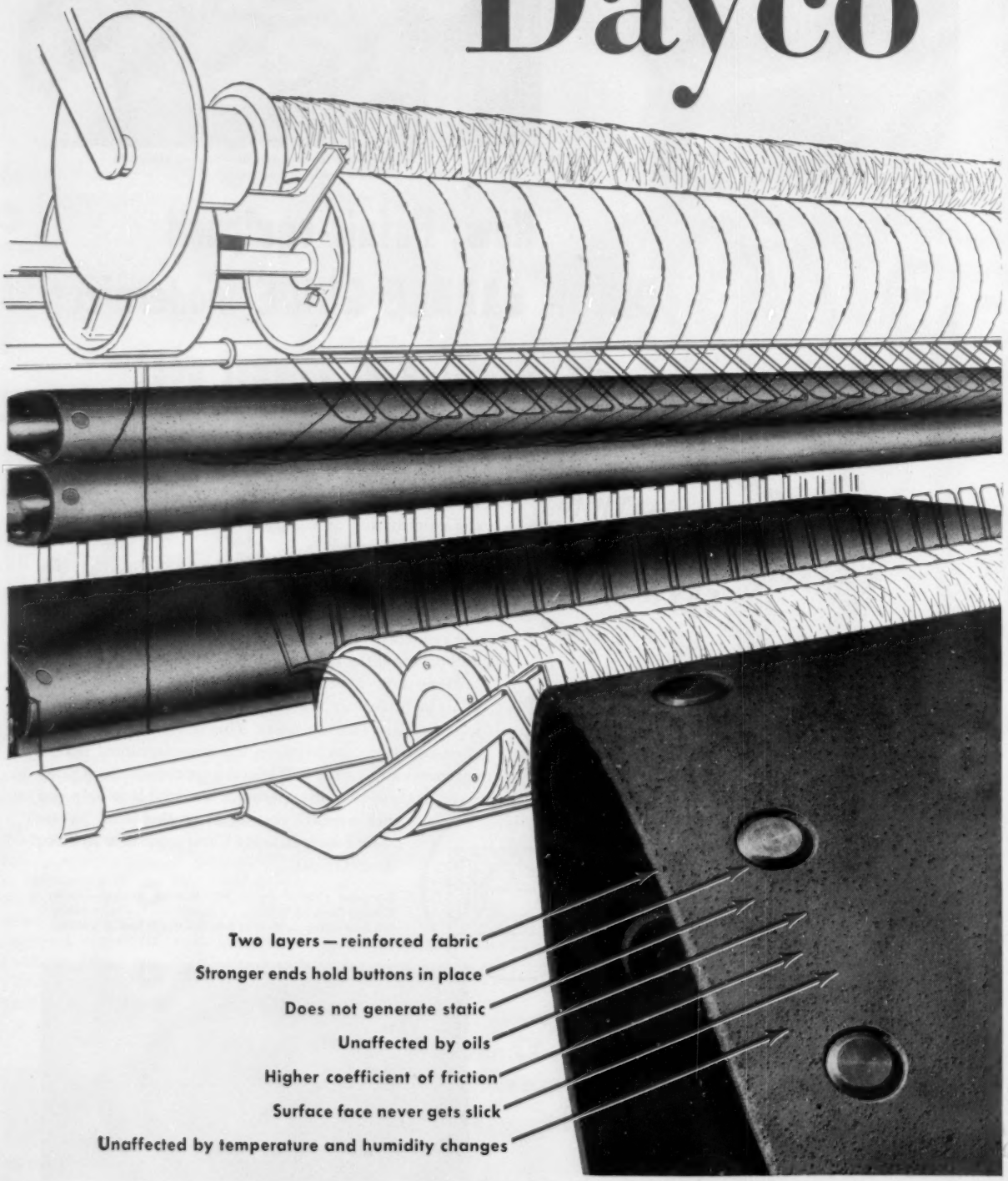
Many new developments in textile machinery and equipment feature the advantages of Fafnir ball bearings and ball bearing units. This is often the result of close collaboration between the manufacturers' design engineers and Fafnir ball bearing specialists. Such practical, on-the-job experience is available to help you with anti-friction bearing problems. Write The Fafnir Bearing Company, New Britain, Connecticut.



Sectional view of Fafnir Ball Bearing equipped with Contact Seals of Teflon . . . material that has remarkable self-lubricating properties and low coefficient of friction.

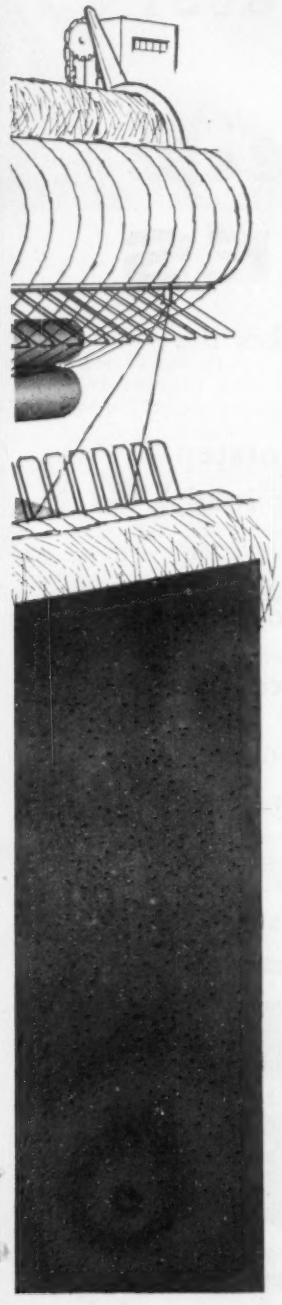
FAFNIR
BALL BEARINGS
MOST COMPLETE LINE IN AMERICA

NEW *from fabric to face...* Dayco


Two layers—reinforced fabric
Stronger ends hold buttons in place
Does not generate static
Unaffected by oils
Higher coefficient of friction
Surface face never gets slick
Unaffected by temperature and humidity changes

revolutionary

Rub Aprons!



New construction features of Dayco Rub Aprons assure improved yarn uniformity at impressive savings in time and money.

These new, revolutionary Dayco Rub Aprons have the highest co-efficient of friction of any apron on the market. Assuring a substantial reduction of eccentric motion, they enable you to produce the finest quality yarn at the lowest cost. Add to these the sensational features that multiply your savings through the elimination of downtime and the minimization of maintenance, and you'll see why your carding operation will be more profitable than ever with Dayco Rub Aprons.

Completely new from base to surface, amazing Dayco Rub Aprons have *two* layers of rubber-impregnated, reinforced fabric. Not only does this unique feature reduce eccentric motion, but it enables Daycos to stand up longer under continuous flexing. Redesigned, stronger ends hold the buttons in place for long, continuous service.

Because they are built with a surface of the finest, thickest synthetic rubber, superior Dayco Rub Aprons achieve a higher co-efficient of friction and resist the abrasive action of constant rubbing. As a result, the surface never becomes glazed, the proper density is given to the yarn, and the quality of yarn output per machine is increased.

Dayco Rub Aprons are perfectly concentric. They hug the rolls tightly to give you the advantages of better traction, better tracking and improved, non-slip drive.

Another exceptional feature of Dayco Rub Aprons is that they are *unaffected* by oils used in the emulsion and hence don't "grow". And Daycos generate *no* static, are *not* affected by temperature and humidity changes, absorb *no* color pigment from the dyed wool. No wonder you save money and get more uniform yarn with Daycos.

The sooner you make your own test with these new, amazing Dayco Rub Aprons, the sooner you'll profit. You'll see how easy they adjust, how they "stay put" to speed up condenser operation, and how they produce more yarn uniformity as well as more yarn per card. All this at big savings, too! For complete information write to Dayton Rubber Co., Textile Division, Dept. 368, 401 S. C. National Bank Bldg., Greenville, S. C.

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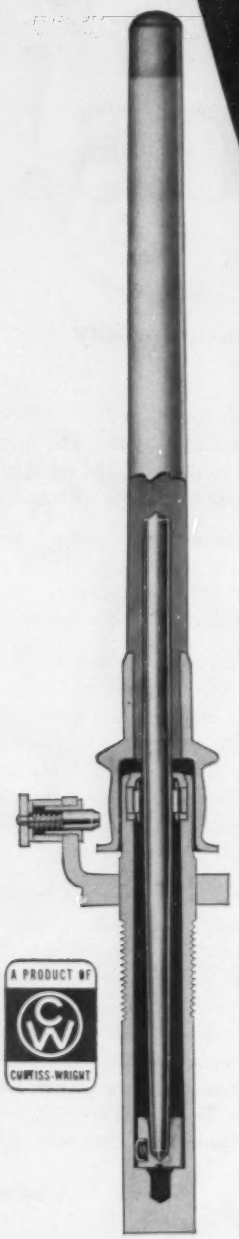
GOLDEN JUBILEE

Dayton Rubber 50 YEARS OF PROGRESS

Dayco and Dayton Thorobred Textile Products for Better Spinning and Weaving



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why you get

MORE YARN at LOWER COST

with Marquette SPINDLES

1. Oversize roller bearing takes the radial load
2. Exclusive and patented footstep bearing carries the thrust load, dampens vibration
3. Extremely low maintenance cost
4. Efficient operation at high speeds
5. Millions in use. Many thousands have been in continuous service for 10 years and longer

Prompt delivery guaranteed. Made in U. S. A. Protected by U. S. and foreign patents and patents pending.

The Marquette METAL PRODUCTS COMPANY

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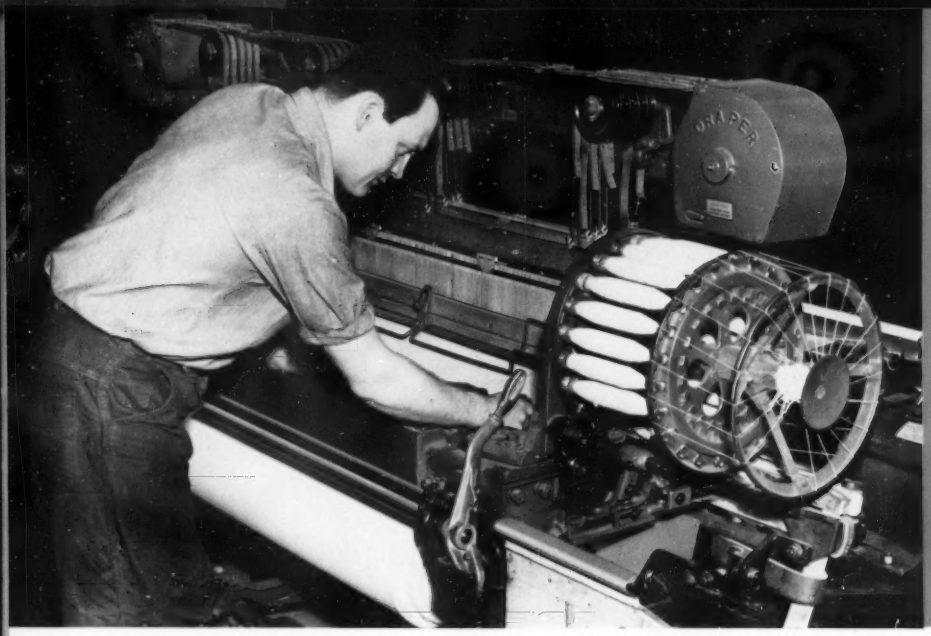


No. 4 of a Series

DRAPER LOOM FIXING

Setting Instructions for the Midget Feeler

(Cotton Weaves)

The Midget Feeler is a simple, sensitive mechanism which indicates when the Filling Bobbin should be replaced. Proper setting of the Midget Feeler will aid greatly in weaving quality fabrics and reducing seconds.

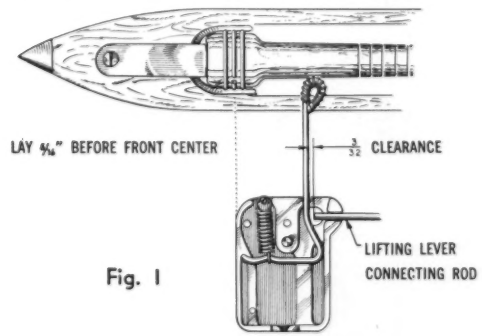


Fig. 1

Available are various types of Filling Feeler Tips suited to a wide range of yarns.

Before setting the Midget Feeler, remove all play from the Crank Arms and Rocker Shaft.

With the shuttle in the box opposite the Battery End, place an empty bobbin in the shuttle.

Using a straightedge, line up the outer edge of the Filling Feeler Guide with the center of the second ring of bobbin in the shuttle.

The Feeler assembly should be placed at right angles to the Lay.

Adjust the height of the Feeler with Tip slightly above center of bobbin when touching an empty bobbin in shuttle resting on the Lay End.

With the Lay 5/16" before front center, adjust Filling Feeler assembly on the Bracket with Filling Feeler Tip just touching empty bobbin in the shuttle. Tighten the holding screw (see Fig. 1).

Move Lay to front center and allow feeler to sideslip on the bobbin (see Fig. 2). The Feeler should have a clearance with end of opening in Filling Feeler Guide.

With Lay again at 5/16" before front center, adjust the length of the Lifting Lever Connecting Rod so that there will be a 3/32" clearance between the end of the rod and the Feeler (see Fig. 1).

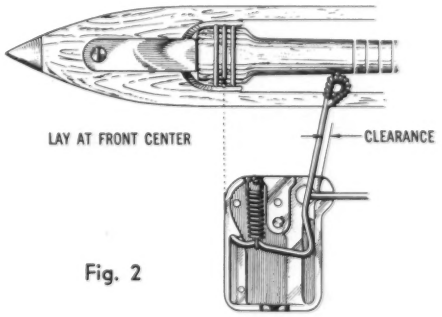


Fig. 2

With the Lay just before front center, and the Filling Cam Follower on the heel of the Cam (low position), adjust the Filling Cam Follower Trip so that its lowest point will override the top of the Lifting Lever by 1/8". It should stand 1/8" back of the Lifting Lever (in its normal position).

For complete information, covering cotton and synthetic weaves, ask for Draper Midget Feeler Setting Instructions booklet. (See coupon below)

DRAPER CORPORATION

Advertising Department (T14)
Hopedale, Massachusetts

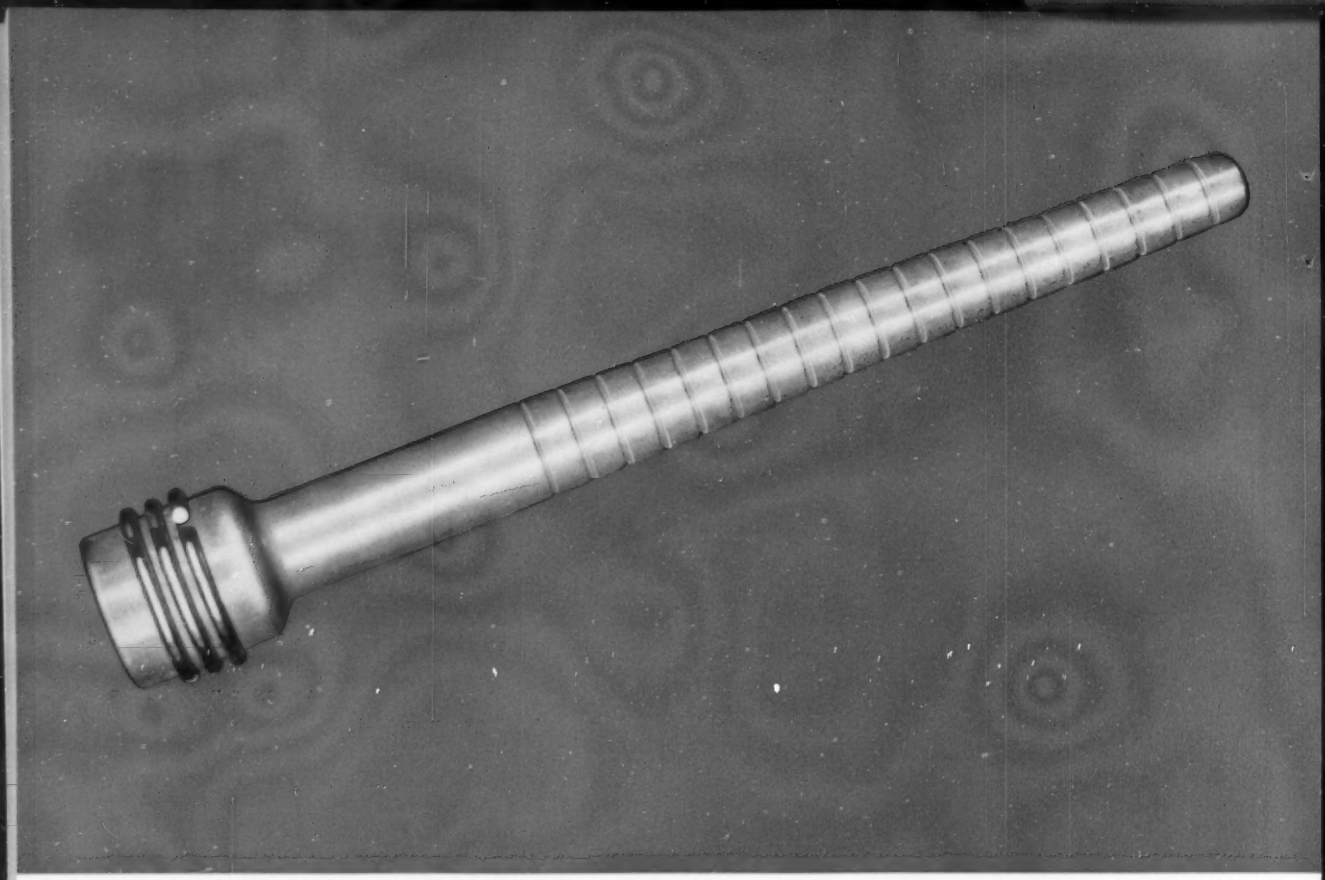
Please send complete Setting Instruction No. 513 and No. 540 "The Midget Feeler."

Name _____

Position _____

Company _____

Address _____



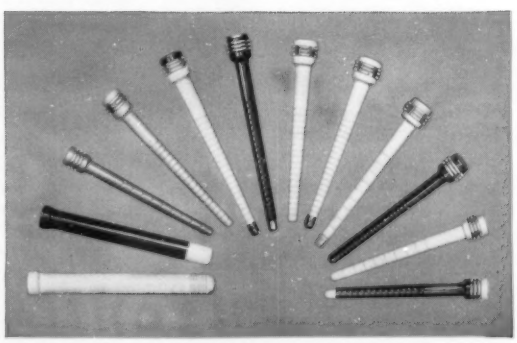
TWO-WAY REDUCTION WITH DRAPER BOBBINS

Draper custom-built bobbins help you reduce costs in both your *spinning* and *weave rooms*.

Made from the finest raw materials . . . under modern manufacturing techniques . . . Draper Bobbins are unsurpassed for quality and uniformity.

Exacting manufacturing tolerances on all dimensions, both *inside* and *out*, reduce costly down-time in spinning and weaving.

For greater profits, increased production and efficiency, order Draper Bobbins . . . quality bobbins at low cost.



There is a quality Draper bobbin to meet all your requirements.

DRAPER CORPORATION

HOPEDALE, MASS.

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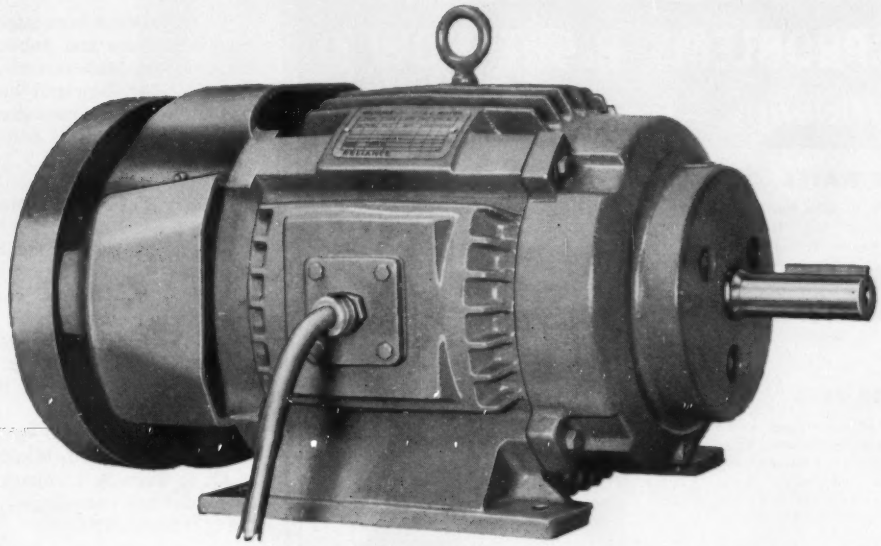
SPARTANBURG, S. C.

lint-free



THE *RIGHT* TEXTILE MOTOR

- Requires NO Cleaning
- Compact NEW NEMA Frames
  Can Be Mounted Under the Machine
- TOTALLY Protected
  Long Trouble-free Service
- Reduces Fire Hazard B-1501

RELIANCE ELECTRIC AND ENGINEERING CO.

Cleveland 10, Ohio • Offices in Principal Cities

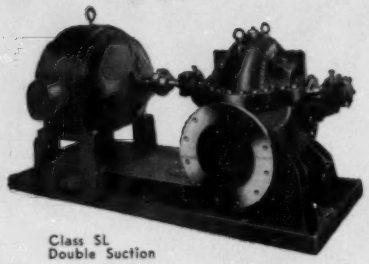
air-cooled

WHICH OF THESE "BUFFALO" PUMPS COULD BE SOLVING YOUR PROBLEMS RIGHT NOW?

(Efficiently — Economically)

CLEAR WATER

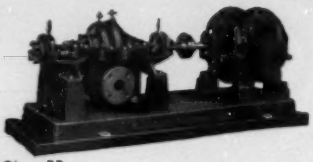
"Buffalo" Double Suction Pumps are the finest example of the "Q" Factor* that gives you the most for your pumping dollar. Hydraulically balanced, highly efficient and durable. In sizes to deliver from 10 to 14,000 gpm for circulating, air conditioning, other plant services. **Request Bulletin 955-Q.**



Class SL
Double Suction

BOILER FEED

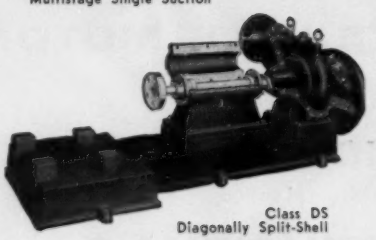
For boiler feed and other clear water service against high pressures, **write for Bulletin 980** and see how efficiently these rugged "Buffalo" Type "RR" Pumps perform. In 2 and 4 stages to handle up to 500 psi. Capacities up to 900 gpm.



Class RR
Multistage Single Suction

PAPER STOCKS

For handling high consistency liquids, you'll save money and trouble with non-clogging "Buffalo" Paper Stock Pumps. Available in alloys or rubber-lined for corrosive and abrasive liquids. A pump for every job described in **Bulletin 953.**



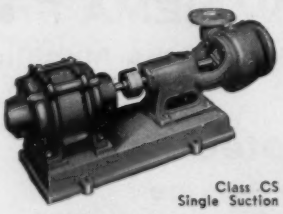
Class DS
Diagonally Split-Shell

CHEMICALS

A complete line of "Buffalo" Pumps, ready to handle corrosive or abrasive liquids at least maintenance cost. Write for **Bulletins 976 and 982.**

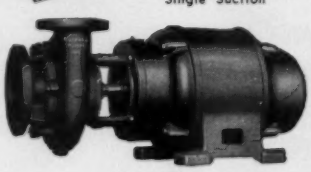
OTHER PUMPS

"Buffalo" builds Vertical Ejectors, Sewage Pumps, Fire Pumps, Marine Pumps and the husky, space-saving Close-Coupled Pump shown. In short, there's a "Buffalo" Pump for best results in any application you may have in mind. Write us about your problem!



Class CS
Single Suction

"Buffalo" PUMPS



Class CCL
Close-Coupled
Write for Bulletin 975-D.

*The "Q" Factor—the built-in Quality which provides trouble-free satisfaction and long life.

BUFFALO PUMPS, INC.

175 MORTIMER STREET BUFFALO, N. Y.

Subsidiary of Buffalo Forge Company

Canada Pumps, Ltd., Kitchener, Ont.

Sales Representatives in all Principal Cities

A BETTER CENTRIFUGAL PUMP FOR EVERY LIQUID

Personal NOTES ABOUT MEN YOU KNOW

(Continued from page 28)

communications and public relations for Chatham Manufacturing Co., Elkin, N. C. Mr. Howland was Raleigh, N. C., bureau manager of the "Charlotte Observer" before accepting this position.

Duncan McDonald, formerly treasurer of Leaksville Woolen Mills, Inc., is now a vice-president and manager of the No. 1 plant at Spray, N. C., succeeding **H. A. Morson,** who recently retired after 22 years as manager. Named as treasurer to succeed Mr. McDonald was **Sell Culp** who also serves as secretary of the firm.

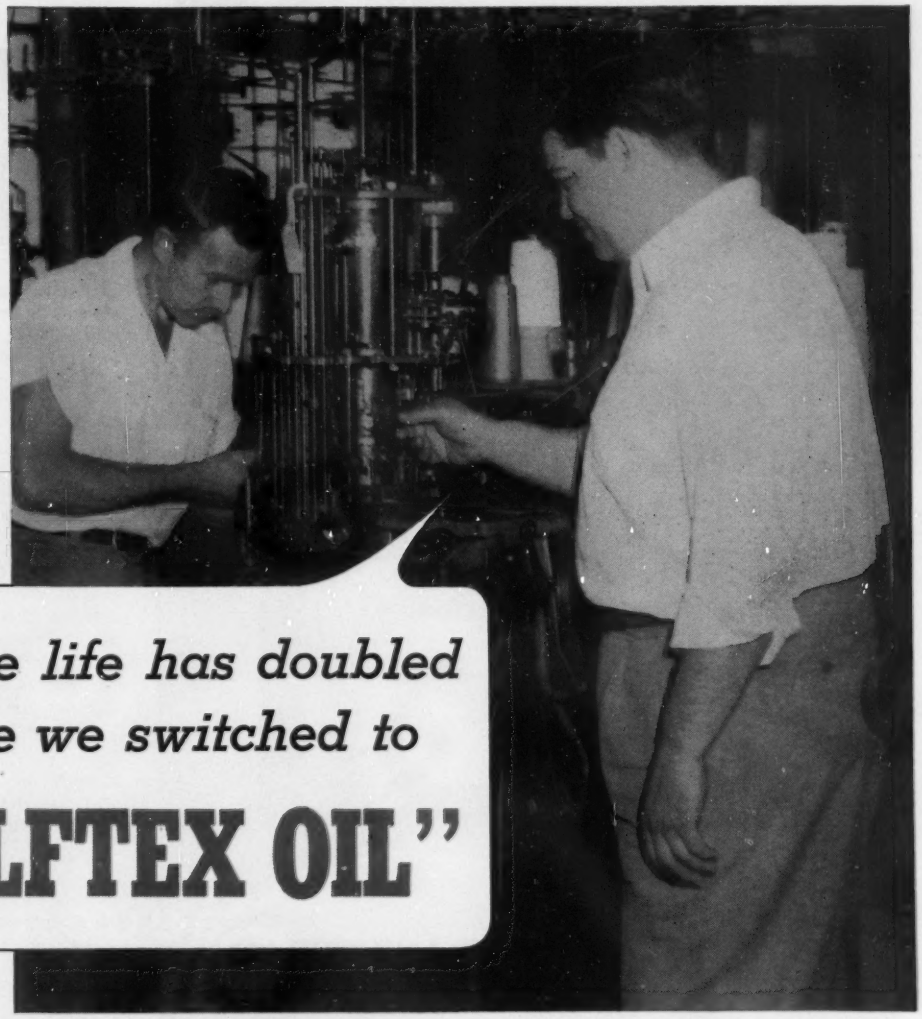
New chief purchasing agent at Washington Mills Co., Winston-Salem, N. C., is **Vann R. Lineback** who had been assistant purchasing agent at the mill since 1938.

A combined 118 years of service at Lowell Technological Institute was terminated at the end of the 1954-55 academic year when three professors retired from active teaching. They were **Prof. Herbert J. Ball,** chairman of the division of engineering; **Prof. James H. Kennedy, Jr.,** chairman of the division of textile manufacturing; and **Prof. Martin J. Hoellrich,** member of the design and weaving department.

Promotions at C. H. Masland & Sons: **R. P. Masland,** formerly treasurer and secretary, is now first vice-president and chairman of the finance committee; **F. E. Masland, III,** formerly assistant to the president, is vice-president and assistant general manager; **William S. Masland,** formerly assistant secretary, is treasurer and secretary. **C. H. Masland, III,** formerly assistant to the vice-president for engineering, is vice-president for engineering; **G. Richard Keim,** formerly assistant to the president, is vice-president for special services.

Howard R. Medici was recently elected president of The Visking Corp., producer of non-woven fabrics, unsupported polyethylene film, etc. Succeeding the late J. Paul Smith, Mr. Medici joined Visking in 1929.

Recently appointed director of industrial relations for Sidney Blumenthal & Co., Inc., was **Macon P. Miller** who had been associated with Field-



"Needle life has doubled since we switched to GULFTEX OIL"

says Mr. Glenn Powers, Superintendent
Continental Hosiery Company, Henderson, North Carolina

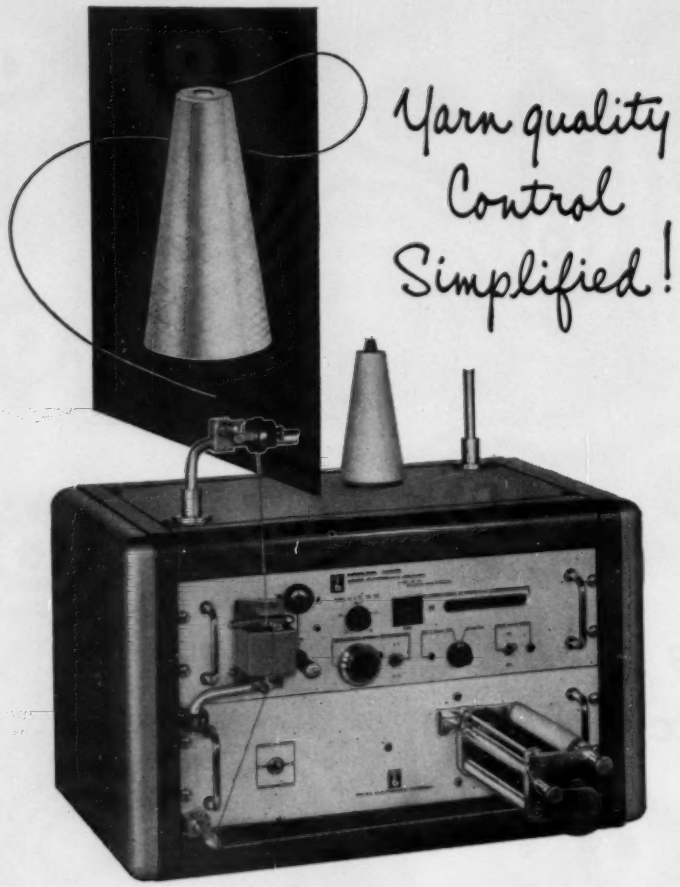
"Not only has needle life been doubled in our knitting machines since we switched to Gulftex Oil in 1953," says Mr. Powers, "but we have also eliminated rust through the use of this excellent oil. Latch needles are much cleaner, sliders are freer, and the machinery lubricated with Gulftex runs noticeably quieter and smoother."

In addition to its qualities which make such important benefits possible, Gulftex Oil has superior non-staining characteristics, so it's the ideal lubricant for any application where the staining of fabrics is a problem.

Call in a Gulf Sales Engineer today and have him demonstrate the advantages of Gulftex Oil in your mill. Consult your telephone directory for your local Gulf Office. Gulf Oil Corporation · Gulf Refining Company, 1822 Gulf Building, Pittsburgh 30, Pennsylvania.

THE FINEST PETROLEUM PRODUCTS FOR ALL YOUR NEEDS

GULF



Yarn quality Control Simplified!

Brush Imperfection Counter measures and counts neps and other defects automatically

This newest textile instrument by Brush greatly simplifies your quality control—helps you evaluate changes in card production rates, beater speeds, etc. It gives you *facts* to plan for greater production efficiency.

With the Imperfection Counter, you can test any dielectric textile material: cotton, wool, synthetics, fiberglass, plastics. Yarn is automatically checked at the rate of 100 yards per minute. A counter indicates total number of imperfections in a standard length.

This instrument eliminates the human factor in quality checking—saves time and permits exact comparison of mill-to-mill results. For information on this or other Brush Textile Instruments, write Brush Electronics Company, Dept. T-8, 3405 Perkins Avenue, Cleveland 14, Ohio. Southeastern Office: 91 Cleveland St., Greenville, South Carolina. (Phone 5-4079).

BRUSH ELECTRONICS COMPANY

INDUSTRIAL AND RESEARCH INSTRUMENTS
PIEZOELECTRIC MATERIALS • ACOUSTIC DEVICES
MAGNETIC RECORDING EQUIPMENT AND COMPONENTS

BRUSH ELECTRONICS

Division of Clevite Corporation

Personal NOTES ABOUT MEN YOU KNOW

crest Mills, Inc., at Spray, N. C., for several years. Mr. Miller is headquartered in the company's offices at Rocky Mount, N. C.

Succeeding **George H. Carr,** resigned, as president of Julius Kayser & Co., Ltd., Sherbrooke, Que., Canada, is **A. Phillip Goldsmith,** president of Julius Kayser & Co. of New York. Mr. Goldsmith's most recent appointment is in addition to his existing duties. * * * Complete control over all manufacturing operations at the Canadian plant has been given to **Howard S. Peterson,** a vice-president.

Recently named vice-president in charge of industrial relations and a director of Hanes Hosiery Mills Company, Winston-Salem, N. C., was **Dr. D. J. Moffie,** formerly head of the department of psychology at North Carolina State College.

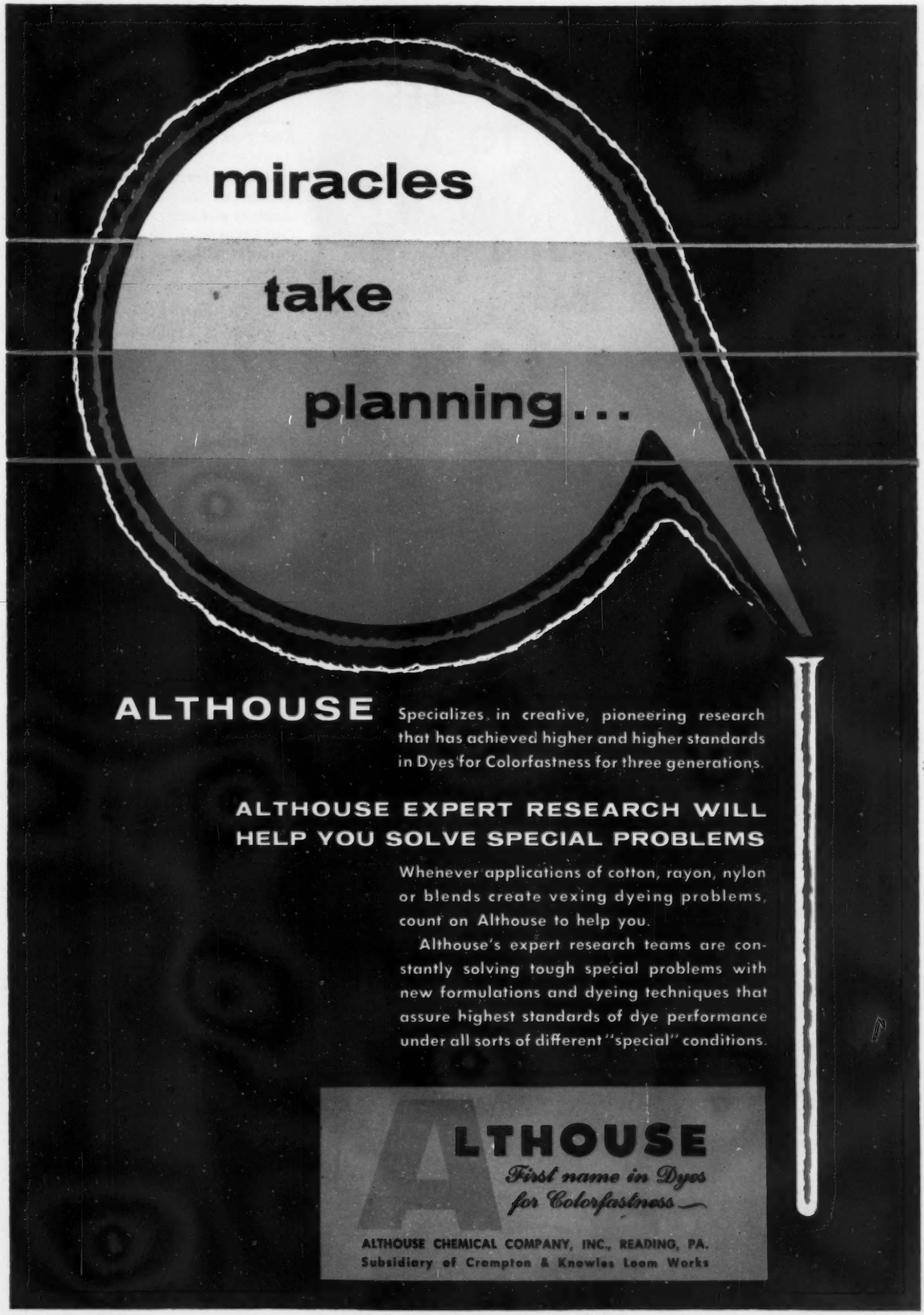
Succeeding the late Walter J. Mooney as president of Ballston-Stillwater Knitting Co., Ballston Spa, N. Y., is **Walter J. Mooney, Jr.**

During September and October of this year **Prof. William E. Morton** of the Department of textiles, Manchester (England) College of Technology, will be a visiting research professor of textiles at the School of Textiles, North Carolina State College.

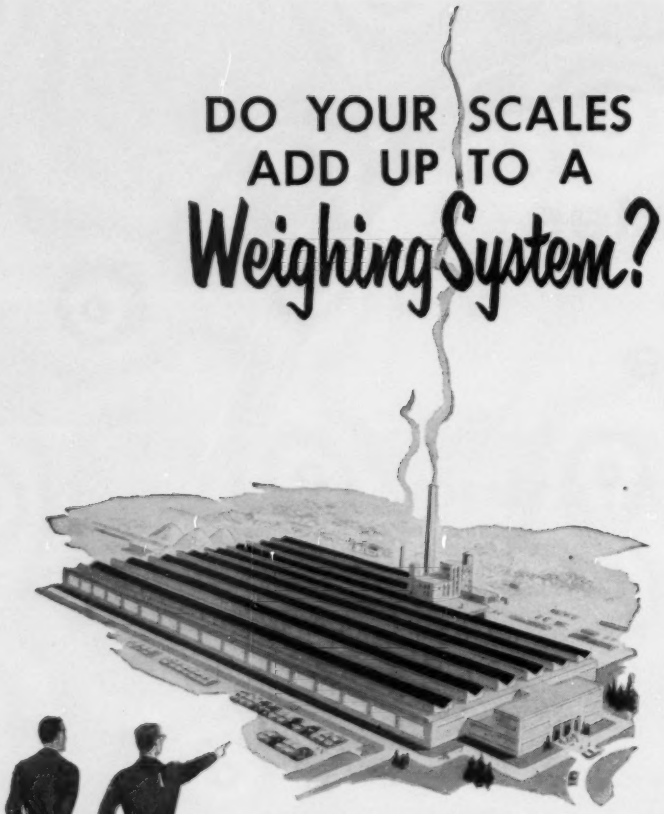
Clarence J. Hyslup of Chatham Mfg. Co. in Elkin, N. C., and **Bahnson C. Hall, Jr.,** of the Hanes Hosiery Mills Company in Winston-Salem, N. C., were recently honored by the State of North Carolina for their work in the field of safety.

Stiles R. Fifield, director of raw materials purchasing at Fieldcrest Mills, Inc., Spray, N. C., is chairman of the executive committee of the cotton buyers division of the North Carolina Textile Manufacturers Association. Vice-chairman is **George H. Bruton** of American & Efird Mills, Inc., Gastonia, N. C.

New president of Catalina, Inc., Los Angeles, Calif., is **A. Louis Oresman,** who is a partner in the New York accounting firm of Aronson & Oresman. Mr. Oresman succeeds the late Edgar W. Stewart and is con-


miracles
take
planning...
ALTHOUSE
Specializes in creative, pioneering research that has achieved higher and higher standards in Dyes for Colorfastness for three generations.
ALTHOUSE EXPERT RESEARCH WILL HELP YOU SOLVE SPECIAL PROBLEMS
Whenever applications of cotton, rayon, nylon or blends create vexing dyeing problems, count on Althouse to help you.
Althouse's expert research teams are constantly solving tough special problems with new formulations and dyeing techniques that assure highest standards of dye performance under all sorts of different "special" conditions.
ALTHOUSE
First name in Dyes for Colorfastness
ALTHOUSE CHEMICAL COMPANY, INC., READING, PA.
Subsidiary of Crompton & Knowles Loom Works

DO YOUR SCALES ADD UP TO A *Weighing System?*



TODAY IT PAYS TO TAKE A PLANT-WIDE LOOK AT WEIGHING

Do you have the *right* scales in the *right* places? A modern *Weighing System* works hand in hand with your accounting *system* and makes a *big* difference in helping you win your war on costs. Weight records that originate at scales flow to the accounting areas and directly affect costs, inventories and customer billings. Weighing errors cannot be corrected later—weights must be right the *first* time. That's why it's more than ever important to think of weighing not in terms of isolated scales, but as a vital part of your overall cost-control system.

If you would like to explore this in relation to your plant, why not drop us a line today? No obligation, of course.
Ask about the "weighing system plan."
Toledo Scale Company,
Toledo 1, Ohio.

Personal NOTES
ABOUT MEN YOU KNOW

tinuing to take an active part in the New York firm.

Lionel Jarvis, formerly superintendent of the Lymansville Co., is assistant manager of Paragon Worsted Co., Providence, R. I. **John Webster,** formerly with the Lorraine Mfg. Co., is overseer of weaving at Paragon.

D. J. R. Suffredini has been named president of Pendleton Mfg. Co., in addition to his duties as treasurer and general manager of the plants at La France and Pendleton, S. C., and general manager of La France Automotive Fabrics, Inc., of Anderson, S. C. Acting as director of manufacturing for all plants is **Kendall Greenwood,** head of La France Industrial Fabrics Division of La France Industries, Inc. Mr. Greenwood has also been named vice-president of Pendleton Manufacturing.

In a ceremony held in Brooklyn, N. Y., recently, **Jack J. Press** of the research and development division, Clothing Supply Office, was awarded a meritorious civilian service award

Mr. Press receives award from Admiral Knickerbocker.

by Rear Admiral William L. Knickerbocker, Supply Corps, U. S. Navy, Commanding Officer, U. S. Naval Supply Activities, N. Y., for his original development of testing devices and procedures for use in the engineering of approved apparel fabrics. Two of the testing devices developed by Mr. Press are the appearance-retention and drape-flex stiffness testers which have previously been described in this magazine. Admiral Knickerbocker stated in making the award, "It is believed that without your contribution prog-

COMPARISON PROVES THE

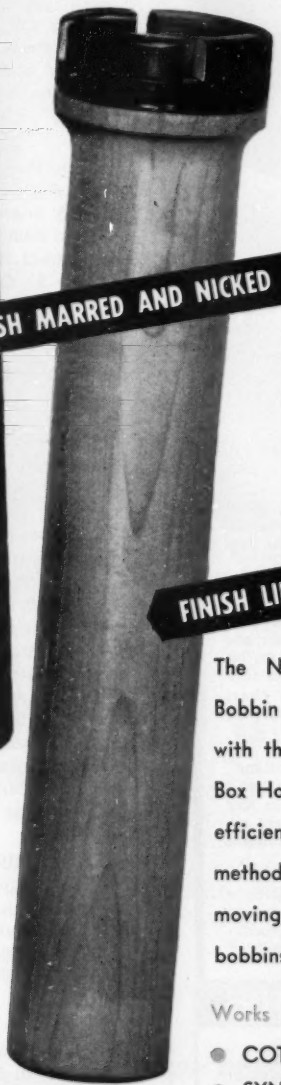
SAFETY

OF THE NEW MODERN

TYPE M

ROVING BOBBIN CLEANER

NO. 1



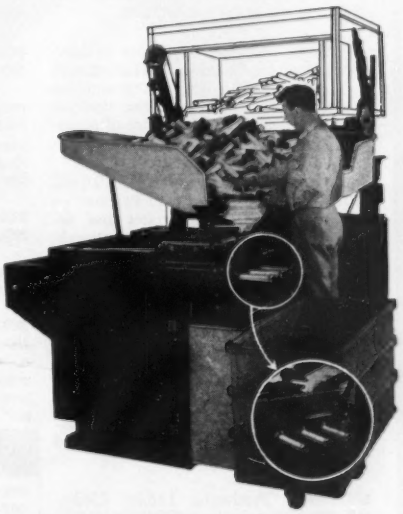
NO. 2

FINISH MARRED AND NICKED

Note the scratches and nicks on bobbin No. 1. They are the result of obsolete cleaning methods. Compare it with the finish on bobbin No. 2 which is in perfect condition, after repeated cleanings on the New Type M Roving Bobbin Cleaner. This modern machine removes waste with jaws of a new design, so shaped they **cannot nick or mar the finish.**

FINISH LIKE NEW

The New Type M Roving Bobbin Cleaning Machine, with the labor-saving Bobbin Box Hoist, is the safest, most efficient, most economical method ever devised for removing waste from roving bobbins.



Works equally well on

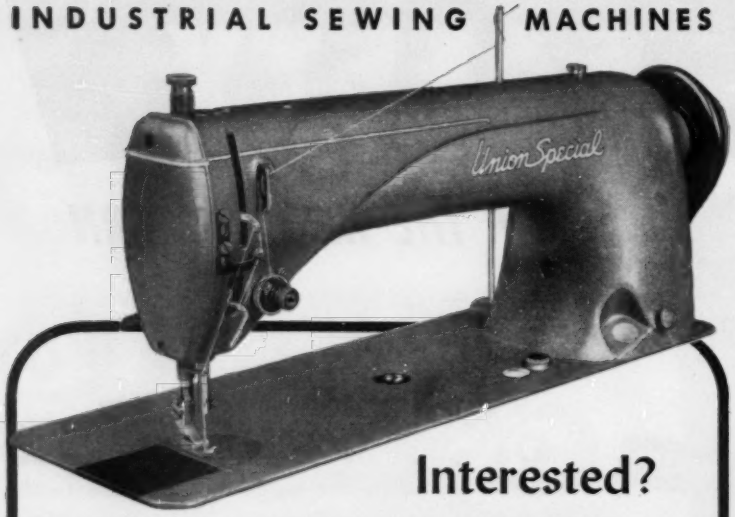
- COTTON
- SYNTHETICS
- WOOL

Consult Terrell for additional detailed information, or to survey your bobbin cleaning requirements.

THE Terrell MACHINE COMPANY, INCORPORATED CHARLOTTE, NORTH CAROLINA

Union Special®

INDUSTRIAL SEWING MACHINES



Interested?

Helpful, informative bulletins on the manufacture of many machine sewed products are available to readers without obligation. If you are interested, let us know and we will send bulletins requested to you.

BULLETIN NO. 250 "The Manufacture of Men's Dress and Sport Shirts" — Profusely illustrated 6-page folder describing the most efficient way to manufacture men's shirts. Includes keyed diagram of sewing operations plus drawings of seams and stitches.

BULLETIN NO. 251 "Sewing Operations on Service Garments"—Informative listings of recommended equipment for making service uniform shirts and pants. Lists sequence of operations and stitch and seam types.

BULLETIN NO. 252 "Production of Men's and Boys' Shorts and Pajamas"—Bulletin illustrates and describes machines recommended for making woven shorts and pajamas. Contains information on Union Special's Elastic Metering Device.

BULLETIN NO. 253 "Manufacturing Overalls, Coveralls, Dungarees, and Westerns"—Six page, illustrated folder describing machines found to be best for this type of production. Simple diagram shows operations involved and back cover shows seam and stitch types used.

BULLETIN NO. 255 "Producing Ladies' Undergarments and Nightwear"—New Union Special bulletin analyzes a variety of designs and presents newest machines recommended for operations on women's slips, panties, and nightwear.

BULLETIN NO. 260 "How to Make Work Gloves"—Six-page folder describes and illustrates machines recommended for work glove manufacture, with illustrated explanation of different seam and finish constructions.

BULLETIN NO. 262 "How to Make Bags"—Economical and efficient production of burlap, jute, and multiwall paper bags is outlined in this folder, with photos of actual seam samples included. Helpful guide chart shows immediately the right machine for any bag manufacturing job.

BULLETIN NO. 263 "Tailoring Men's Clothing"—The art of tailoring men's clothing is described in this brochure. Machine illustrations are accompanied by actual seam sample photos.

BULLETIN NO. 265 "Sewing Women's Wear"—Eight-page bulletin gives a listing of machines recommended for women's outerwear production and samples of the work produced are shown.

SEND FOR BULLETINS

UNION SPECIAL Machine Company
407 N. Franklin St., Chicago 10, Ill.

Gentlemen:

Without obligation to me, please send me the bulletins checked.

☐ 250 ☐ 251 ☐ 252 ☐ 253 ☐ 255
☐ 260 ☐ 262 ☐ 263 ☐ 265

Name_____

Company_____

Address_____

Personal NOTES ABOUT MEN YOU KNOW

ress in the utilization of synthetic fibers by the Navy would have been materially reduced."

Honorary memberships in Phi Psi, national textile honorary fraternity, have been bestowed upon **Thomas D. Russell,** president of Russell Manufacturing Co., Alexander City, Ala., and **J. Craig Smith,** president of Avondale Mills, Sylacauga, Ala., by the chapter at Alabama Polytechnic Institute.

During the recent graduation exercises at Philadelphia Textile Institute honorary degrees were conferred upon four men for their outstanding achievement in the textile field: **Dr. Richard S. Cox,** dean emeritus of P.T.I., doctor of textiles; **Milton Harris,** president of Harris Research Laboratories, Inc., doctor of textile science; **Theodore B. Hayward,** president of the Franklin Parkway Building Company, doctor of humane letters; **Frederick C. Scholler,** chairman of the board, Scholler Brothers, Inc., doctor of textiles degree.

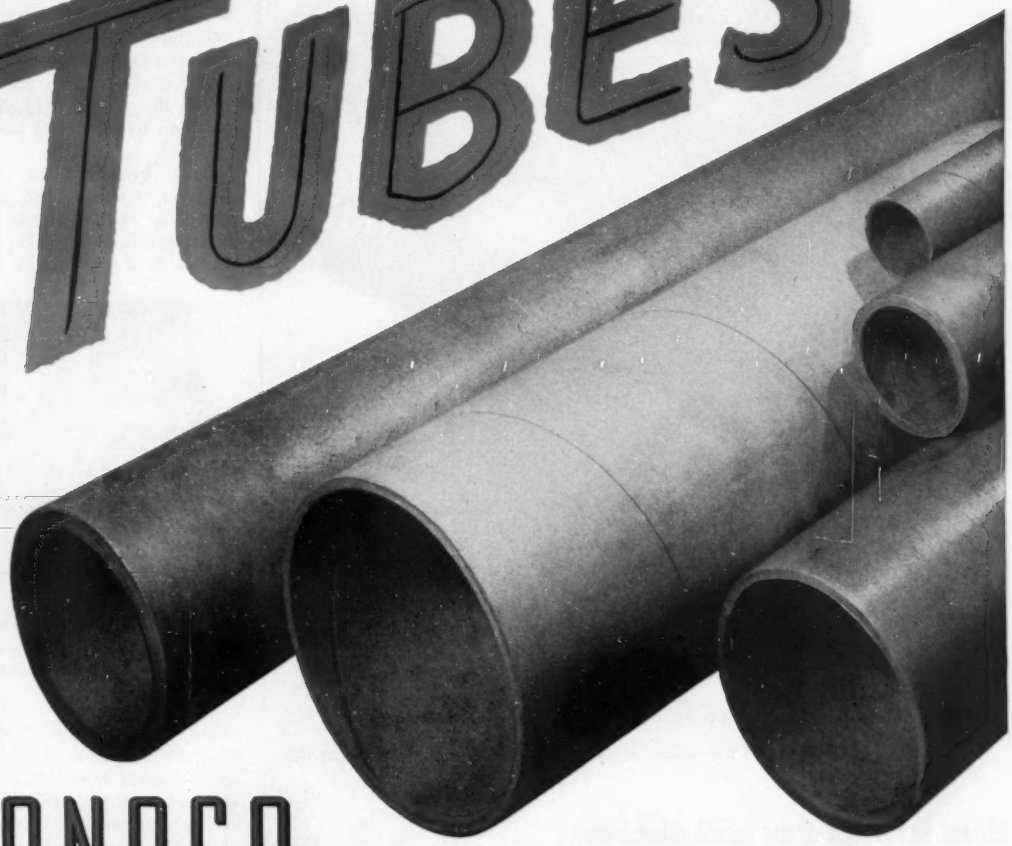
Those recently elected to serve as officers of the Philadelphia Textile Institute Alumni Association are: president, **William A. Popp** of William A. Popp Associates; first vice-president, **Dr. Frederic H. Barth** of Fifer & Beaty; second vice-president, **William Maynard** of National Woven Label Co.; third vice-president, **Edwin Wilkinson** of National Association of Wool Manufacturers; treasurer, **J. William Wilson** of J. P. Stevens & Co., Inc.

George C. Riegger, formerly executive vice-president and treasurer of Chicopee Manufacturing Corp. and now president of Permacel Tape Corporation, has been appointed to the board of directors of Johnson & Johnson.

Divisional superintendent of the new Grier division of Rock Hill (S. C.) Printing & Finishing Co. is **David Vipperman** who was formerly in charge of quality control at the plant. Names and titles of six other employees of the plant who were recently promoted are as follows: **Sam Dunlap,** day foreman in charge of finishing; **Charlie Smith,** day superintendent of printing, soaping, and

When it's textile

TUBES



SONOCO is the name to remember!

Sonoco produces spiral, convolute, parallel or drawn tubes in sizes from ⅛" to 36" I.D., in any practical length and wall thickness—for every textile need! Available in colors, various surfaces, treated, impregnated, perforated, scored, notched, printed, with crimped or burnished ends. Over 50 years' experience enables us to help you with any problem that can be solved with a paper tube.

- YARN TUBES
- CLOTH TUBES
- CREELING TUBES
- TUBES FOR NYLON STRETCH YARN
- CARPET TUBES

—a tube for your every purpose!

sonoco — WRAPS THE WORLD — PAPER CARRIERS
REG. U.S. PAT. OFF.

SONOCO PRODUCTS COMPANY

MAIN OFFICE—HARTSVILLE, S. C.

MYSTIC, CONN. LOS ANGELES, CAL. BRANTFORD, ONT. LOWELL, MASS.
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MEXICO: Sonoco de México, S. A., Apartado 10239, México, D. F.

DEPENDABLE SOURCE OF SUPPLY

Don't Buy New Top Rolls

We can prove that your old cast iron top rolls will give better service than new case hardened steel rolls, or new cast iron rolls. Just send us half a dozen worn rolls for Ideal Specialloy Reconditioning and then test the results for yourself. There is no charge for this.

Here is what you will discover:

SADDLES AND CAP BARS will last longer.

NO OIL SPOTS. Unlike case hardened steel top rolls which reject oil, Specialloy treated rolls *absorb* oil enough to run 2 to 4 weeks without attention. Saves on oiling labor and keeps oil off the stock.

TOP ROLLS, as well as top roll assemblies, last longer, and can be reconditioned again when they finally wear. Don't buy new top rolls, because Ideal Specialloy Reconditioned top rolls are better. Ask for a test today.

Ideal Machine Shops, Inc., Bessemer City, N. C.

Continuous Service to Textile Mills Since 1925

Personal NOTES ABOUT MEN YOU KNOW

coloring; **John W. Madden,** night superintendent of printing, soaping, and coloring; **Levern Huckabee,** night foreman in charge of finishing; **Dick Neely,** night foreman in charge of the color shop; and **Roy Massey,** day foreman in charge of the color shop.

New president of the Griffin, Georgia, Rotary Club is **Robert P. Shapard, Jr.,** president of Spalding Knitting Mills in Griffin. * * * Kappa Tau Beta, a professional knitting fraternity organized at North Carolina State College in 1952 with the aim of promotion of fellowship among those engaged in the knitting industry, recently honored Mr. Shapard by presenting to him the Kappa Tau Beta "Man of the Year" award for outstanding service in the field of knitting and hosiery manufacturing.

Mr. Shapard (right) accepts award from fraternity president Al Nalven.

A Sloan Fellowship for a year's study at Massachusetts Institute of Technology's School of Industrial Management has been awarded to **E. Hanes Rogers,** sales engineer of Fulton Bag & Cotton Mills, Atlanta, Georgia.

Herman D. Ruhm, Jr., recently resigned as president and director of Bates Manufacturing Co., Lewiston, Me., to become president of Burlington Industries, Inc., later in the year.

Now in charge of the Cotton Finishing Division of Reeves Brothers, Inc., is **J. Gordon Coles.** Assistant to Mr. Coles is **Stanley Foster.** Both Mr. Coles and Mr. Foster came to Reeves Brothers from North Carolina Finishing Company. In this new capacity they supervise operation of the

Hundreds of Mills

Have Found with the

STROBOTAC®

it's Simple as

A — Turn this switch either to the "LOW" (600 to 3700 rpm) or "HIGH" (2500 to 14500 rpm) position, depending upon the speed of the machine or part you want to look at.

B — Point the stroboscopic flashing light at the machine.

C — Slowly rotate the speed control knob "C" which is attached to a drum-dial direct-reading in rpm. As this knob is turned, the machine being observed will suddenly appear to stand still. At this point the speed in rpm is indicated on the dial between 60 and 14,4500 rpm; indirectly up to 100,000 rpm!

A slight adjustment of the knob will make the equipment appear to move in s-l-o-w motion over any range from 300-400 rpm to 100,000 rpm . . . permitting exact observation of the performance of the equipment while it is running at its normal speed.

The STROBOTAC is portable, light weight, operated from 115-volt 60-cycle power lines and can be used by anyone. It is priced at $150.00 complete.

To Make SPEED CHECKS and SLOW MOTION STUDIES

- ★ Spindles for **COTTON RAYON WORSTED SILK**
- ★ Rayon Buckets
- ★ Ring Travelers

Hundreds of textile mills have cut down rejects, simplified maintenance and improved quality with the STROBOTAC and other G-R Stroboscopic equipment. **For Complete Data Write for the STROBOSCOPE Bulletin**

STROBOTAC®

Manufactured Exclusively by . . .

WE SELL DIRECT
Prices are net, FOB Cambridge or West Concord, Mass.

GENERAL RADIO Company 275 Massachusetts Avenue, Cambridge 39, Massachusetts, U. S. A.

FISHER
COMBINATION DOFFING
TRUCK *

Consisting of detachable boxes for full and empty bobbins, this unit increases doffing efficiency. A floating bottom in the tight aluminum box keeps empty bobbins always at operator's hand level. The full bobbin box holds a complete doff. Like all Fisher equipment, this Combination Doffing Truck will be adapted to the working conditions of individual plants. We invite your inquiries about this and other Fisher units.

Representatives: **Carolina Supply Co., 35 W. Court St., Greenville, S. C.**
Textile Specialty Co., Box 1297, Greensboro, N. C.
J. W. Davis, 122 Dillingham St., Columbus, Ga.
Thos. A. Davis, 412 Swift Bldg., Columbus, Ga.

***Patent Applied For**

FISHER MANUFACTURING CO.
MATERIALS HANDLING EQUIPMENT, TEXTILE
BOX 244 HARTWELL, GEORGIA

Personal NOTES ABOUT MEN YOU KNOW

Fairforest Finishing Co. at Clevedale, S. C., and Fairforest Company, Eagle & Phenix Finishing Division, at Columbus, Georgia.

Ralph Russell, formerly director of quality control at the Siler City (N. C.) Manufacturing Co., Inc., has been advanced to director of style development. Succeeding Mr. Russell is **Ed Craven** who was formerly quality control director at Chadbourn Hosiery Mills, Inc., Charlotte, N. C. Mr. Craven is also assisting vice-president and general manager John White.

Directing the quality control operations of the Bishopville Finishing Division of Reeves Brothers, Inc., is **Edward F. Starke** who was formerly general manager of the Impregnole Division of Warwick Chemical Co. He is also assisting vice-president Percy Meeker in soliciting finishing for the plant from the company's headquarters in New York City.

Ames Stevens, Ames Textile Corp., Lowell, Mass., has been named chairman of the executive committee of the board of directors, National Association of Wool Manufacturers.

Elected to the board of directors of Fulton Bag & Cotton Mills, Atlanta, Georgia, to fill the unexpired term of the late Julius B. Cronheim, was **Francis Storza** who is in charge of imports and exports for Henry Chanin Corporation, a textile waste firm in East Point, Ga.

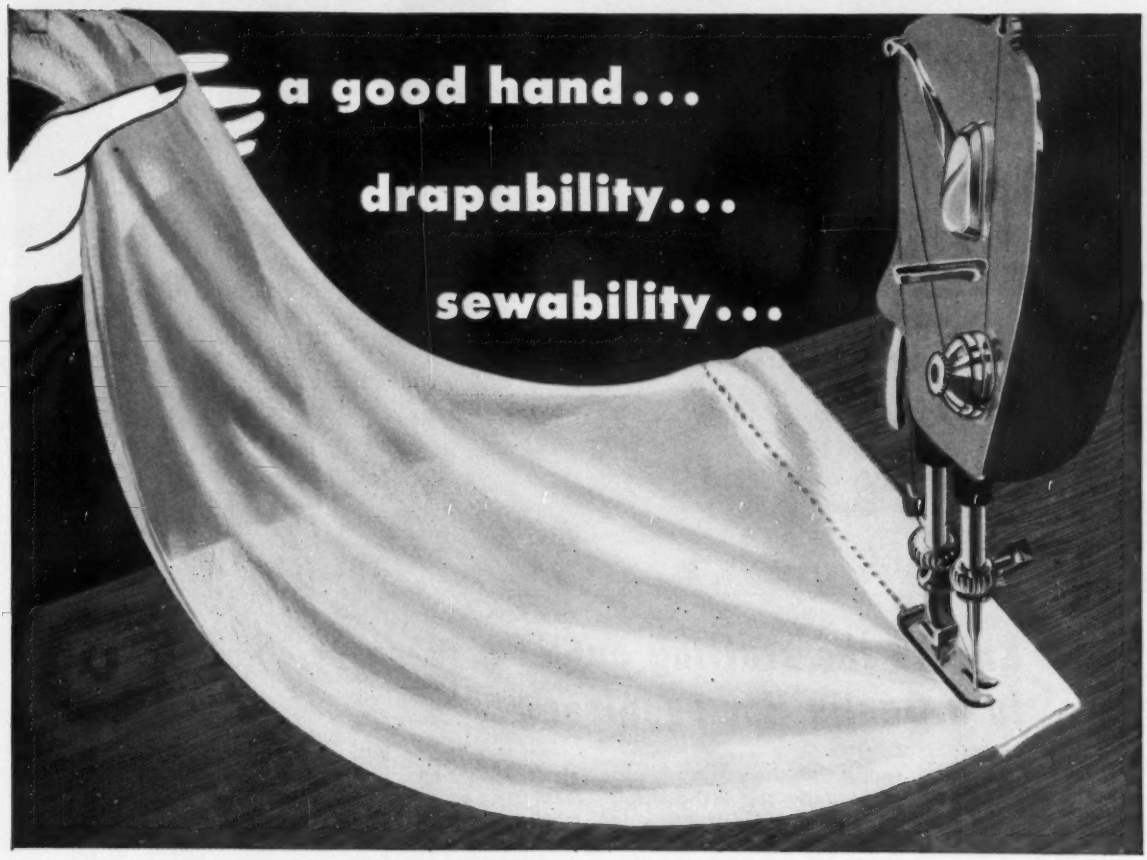
Steve L. Stumberg of Sanderson, Texas, a former vice-president of the American Wool Council and past president of the Texas Sheep & Goat Raisers Association, has been named chairman of the board of directors of The Wool Bureau, Inc.

John M. Hughlett, vice-president of J. P. Stevens & Co., Inc., was recently elected president of The Textile Color Card Association, succeeding **Roy E. Tilles,** president of Gotham Hosiery Co., Inc.

Emil Teghtmeier, formerly boss weaver at Seymour (Indiana) Woolen Mills, is now with Angus Park Co., Inc., Hanover, Conn., in a similar capacity.

(Continued on page 185)

Give your non-woven fabrics



with NITREX 2614!

Nitrex 2614 is a solvent-resistant synthetic latex developed as a binder for non-woven fabrics. Curing at low temperature without sulphur or accelerators, Nitrex adds a softness to the film—adhesion to the fibers—strength and resilience to the fabric.

Non-woven fabrics processed with Naugatuck's Nitrex 2614 can be sewed...will drape naturally and easily...resist dry cleaning oils and solvents. Curing at low temperature without sulphur or accelerators, there is no possibility of discoloration of dye shades during vulcanization.

A new nitrile-type latex, Nitrex 2614 can be used for non-woven fabrics ranging from light, gauze-like to heavy, felt-like materials. All these materials may be printed, dyed, sewed, and glued. They will not ravel and are lintless. Highly absorbent, with a soft, chamois-like feel when wet, Nitrex®-treated fabrics have exceptional wet strength.

In addition, Nitrex 2614 can be used as an adhesive for binding cotton or rayon fibers, paper, polyvinyl chloride film and metal foils.

The world's leader in the field of natural and synthetic latices, Naugatuck will be glad to supply you with additional factual material or expert technical assistance. Simply write to us on your company letterhead. Why not write today?

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Division of United States Rubber Company
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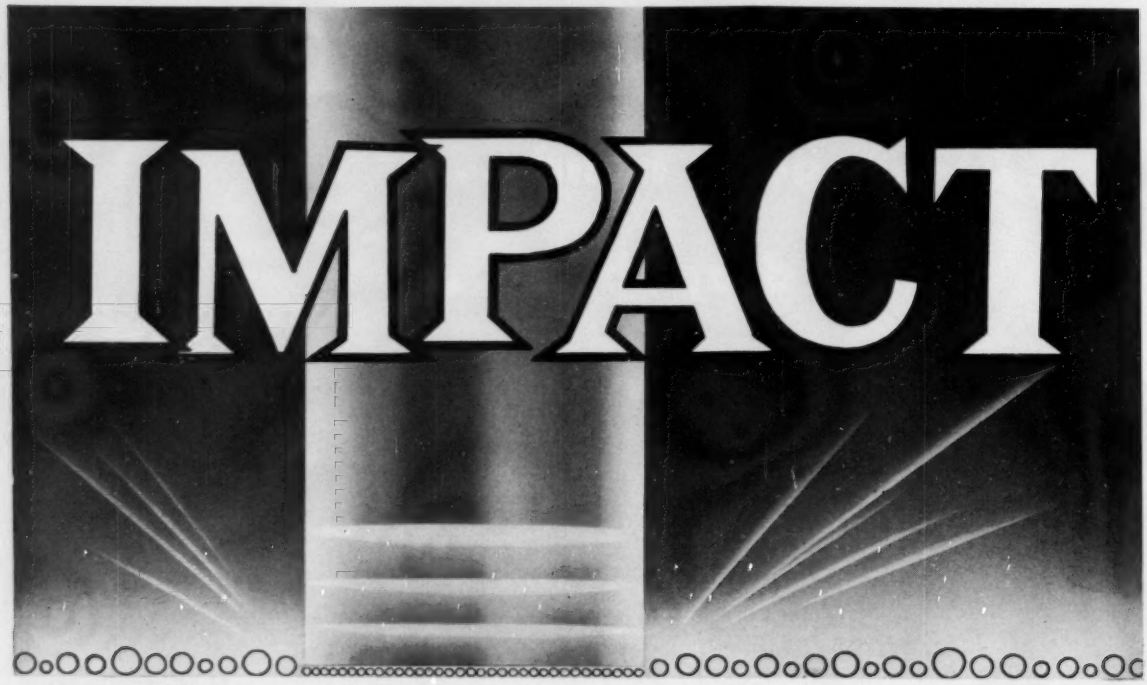
Rubber Chemicals • Synthetic Rubber • Plastics • Agricultural Chemicals • Reclaimed Rubber • Latices • Cable Address: Rubexport, N. Y.



Knocks the stuffing out of size costs in a Gaulin Homogenizer

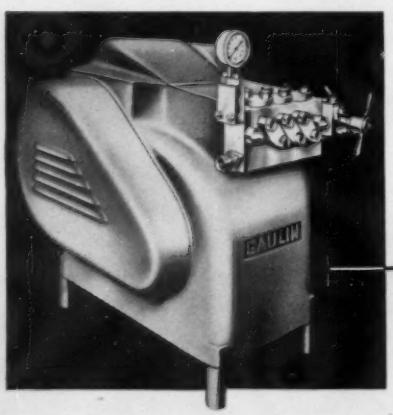
Away with the old, and in with the new. Converting size particles by cooking is rapidly becoming the old fashioned expensive way. Hundreds of America's leading mills have found the mechanical conversion of a Gaulin Homogenizer costs less and does a better, more uniform job.

A Gaulin shears, expands and explodes size particles under tremendous speed and pressure. Makes them uniformly finer, faster.

The result? Mills using this process claim greater uniformity of added size on Gaulin Homogenized warp. Report improved size penetration of their yarn, and say the quality of the warp yarn is greatly improved.

Mills that have tried it now have their entire production on Gaulin Homogenized Size. Experience proves that a Gaulin usually pays for itself in less than 12 months.

Give a Gaulin Homogenizer a test in your mill. We'll be glad to install one for you on a guaranteed-performance basis. Whether you're making cottons, worsteds, or synthetics, write asking for one of our sales engineers to call.



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Here's how Du Pont's Complete Bleaching Service can help you

Whatever you bleach—cotton, wool, rayon, synthetics or blends—Du Pont can help you maintain top efficiency by offering you this complete range of textile bleaching services:

ON-THE-SPOT HELP with any immediate bleaching problem.

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CONFIDENTIAL BLEACHERY SURVEY to help maintain or improve bleaching efficiency.

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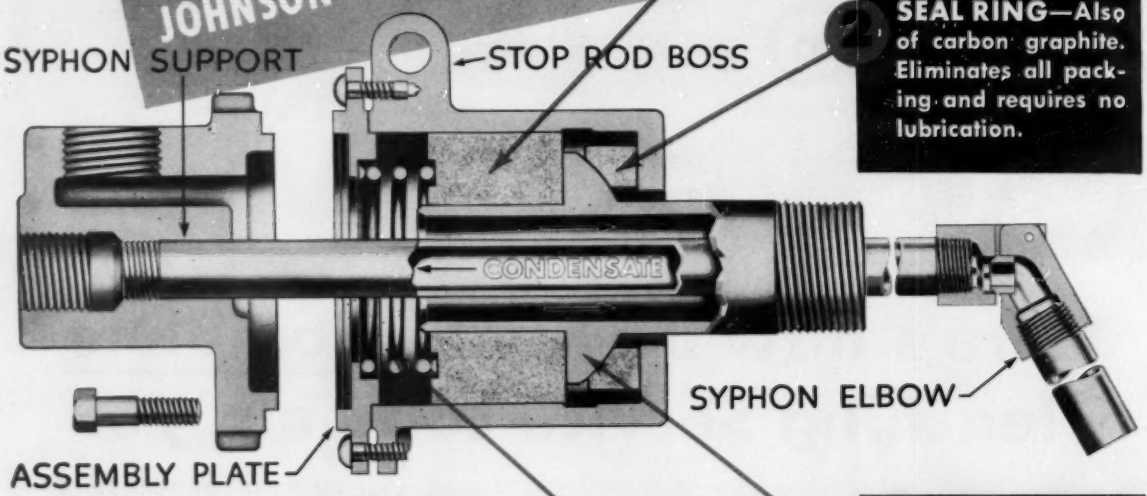

1 GUIDE—Makes the joint self-supporting. It is of self-lubricating, long-wearing carbon-graphite.

2 SEAL RING—Also of carbon graphite. Eliminates all packing and requires no lubrication.

3 NIPPLE—Rotates with the roll, and seals against the ring.

4 SPRING—Serves for initial seating only. In operation joint is pressure sealed.

Notice how straightforward and simple is the design of this Johnson Joint. This unmatched simplicity means fewer breeding places for trouble... simplifies overhaul and repair out in the field. At the same time the joint is completely packless, self-adjusting, self-lubricating and self-supporting.

In this Series 3000 Type SB2-P the assembly plate holds the internal parts in position when head is removed. This makes it a perfect teammate for the Johnson Syphon Elbow which can be inserted or withdrawn right through the joint.

Test it yourself—We'll gladly supply a pair of the units shown for 90 day trial right in your own mill; no obligation of course. Write for details and literature.

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815 WOOD ST., THREE RIVERS, MICH.

Rotary Pressure Joints • Compressed Air Separators and Aftercoolers
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for colors *truly fast* – by *your* standards –

INDANTHRENE® VAT DYES

Whatever the use for the fabrics you dye or print—for clothing, upholstery, draperies, floor coverings, awnings, etc.—the unavoidable demand is that they shall be fast-to-light, fast-to-washing. Your customer's business is safeguarded, when you use vat colors... Indanthrene Vat Dyes have been the standard of the industry for more than 50 years.

From a single source, you draw on the widest color range available. Moreover, to be certain of meeting any requirement you establish, these colors are standardized in as many as six different physical forms...

- "WP" brands—dispersible powders for pigment padding and package dyeing
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and now— ● "Infra Paste" brands—finer milled to afford instant and complete dispersion—speck-free in lighter shades—new, trouble-free ease of working

Consider the strategic location of our warehouses and laboratories to meet your immediate needs. Call upon our Technical Service Department for assistance in any color or color-matching problem. We invite your inquiry.

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RANEDARE
Water Repellents

RANEDARE R — for synthetics
Designed specifically for synthetic fabrics for use with crease resistant and stabilizing resins to provide durable water repellency, shrinkage control, wrinkle and spot resistant effects. Easily diluted in cold water. Low foam, has good running properties. Results are durable to dry cleaning and washing. Has an extremely high shelf life and is very compatible with other resins.

RANEDARE C — for cottons
Especially for use on cotton, to produce high and durable water repellency. Durable to repeated washings or dry cleanings. Very economical, easily diluted. Has high shelf life. Runs exceptionally well with low foam.

RANEDARE S—a silicone for synthetics
Formulated from General Electric Wonder Silicone Dri-Film®, this Ranedare has top durability to dry cleaning, even on velvets and sheer fabrics where other durable water repellents fail. High fastness to consecutive washings. Also works well on cottons and wools.

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Emboset RESINS

Emboset LOCLOR — LOW CHLORINE RETENTION. Produces crush resistant and stabilized effects on cottons and rayon. Emboset Loclor is one of the lowest chlorine retentive resins on the market today. Wherever fabrics are subjected to washing and bleaching . . . this is your resin! Low chlorine retention keeps yellowing and tensile strength losses at a minimum. The resulting finish is wash resistant, crease resistant and fully stabilized. A durable resin producing highly efficient mechanical effects.

Emboset B — SOFT HAND FOR SYNTHETICS, COTTONS and MIXTURES. A liquid stabilizing and crush proofing resin with a high shelf life. Easiest resin you ever used . . . extremely economical. Produces soft hand with superior fastness properties, crease resistance and shrinkage control. Very compatible with other resins. Applicable to synthetics and mixtures. Durable . . . produces highly efficient mechanical effects.

Emboset NR — FIRM AND FULL HAND. A crease proofing, stabilizing liquid resin that produces firmness, resiliency and shrinkage control on hydrophobic fibers such as acetate, orlon, dacron, nylon, etc. Especially good for heavy nylon shoe cloth, or for nylon blouse finishes where a firm, resilient hand is required. Economical and easy to run. Comparatively easy to cure . . . has high shelf life. Durable . . . produces highly efficient mechanical effects.

DACRO-DYE

Dacron Dyeing Assistant
DACRO-DYE — a newly developed "carrier" for dyeing Dacron polyester fiber with dispersed type dyestuffs. Free flowing, self-emulsifying. Easy to apply. Extremely economical.

Complete Technical Information on Request.
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News in Brief

Battle of the Fibers Goes International. Technical assistance in planning and operating market research and sales promotion programs for cotton textiles will be offered by the National Cotton Council to private cotton interests in the major cotton-consuming countries of Europe, Asia, and Latin America. The Council will train personnel both in this country and abroad in market research techniques and how to apply them in organizing sales campaigns. Two members of the Council's staff are now in Europe to initiate the program. * * * Increased production of wool in Australia, New Zealand, and South Africa, together with the continuing stability of world wool consumption, has prompted the International Wool Secretariat to launch plans for expanding wool promotion efforts into new countries, including Austria and other European countries, and South America. * * * Informal agreement on a plan to promote European man-made fibers was reached by users and producers at a meeting in the Paris headquarters of the International Committee of Rayon and Man-Made Fiber Producers. The plan calls for a 0.5 per cent tax on producer's deliveries to users, with three-fourths of the funds to be used for national promotions and the balance to be used to finance operations of the central promotion agency to work with high-style designers and to collaborate with European cotton mills.

Date Set for Next Greenville Show. The 19th Southern Textile Exposition will be held in Textile Hall, Greenville, S. C., Oct. 1-5, 1956, the directors announced recently. They also approved plans for increasing floor space by 7500 sq ft.

Continue New Basis for Estimated Expenses, Accountant Says. Companies which deducted estimated expenses in their 1954 income statements should not go back to the cash basis for these items simply because Sections 452 and 462 of the 1954 Revenue Code have since been repealed, in the opinion of Carman G. Blough, CPA, Research Director of the American Institute of Accountants. Mr. Blough finds no reason why repeal of these sections of the tax law should render 1954 financial reports misleading, even though they were prepared in the expectation of tax deductions which have now been cancelled, and he believes it is unnecessary to issue revised statements. Noting that many companies properly sought tax deductions in setting up reserves for estimated expenses, Mr. Blough believes that some may wish to go back to the old cash basis, since the tax incentive has been removed, but advises against return from a good practice to a merely tolerated one.

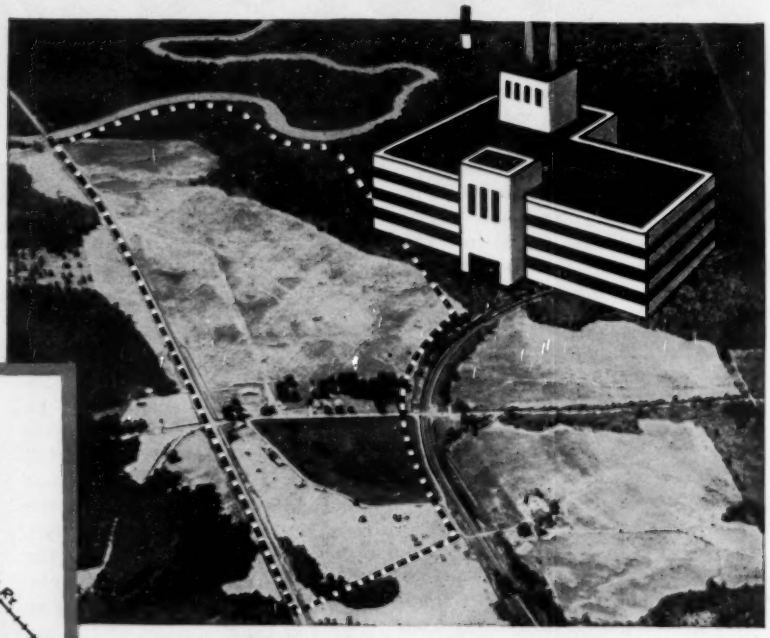
Mill Men's Wives Set the Fashion. An unusual fashion show was held during the recent convention of the South Carolina Textile Manufacturers Association at Sea Island, Ga. Wives of attending textile men wore dresses made of materials manufactured in the mills where their husbands worked. Dresses were of diaper cloth, 12-ounce duck, netting, print cloth, metallic yarn cloth, pile goods, etc. The winner — a dress fashioned from a nylon rug.

Learn Textile Testing By Mail. The School of Textiles at North Carolina State College, Raleigh, N. C., is now offering a three-semester correspondence course in textile testing, open only to students with access to an adequate physical testing laboratory. Details are available from Mrs. Saxe Barnes, head of the College Extension Division.

See Big Season for Worsted Jersey. Knitters' recent heavy purchases of worsted yarn indicate that this fall will be the biggest season for wool jersey in two or three years, according to The Wool Bureau.

Aluminum Yarn for Tires? Aluminum yarn may soon be used in the manufacture of automobile and truck tires, according to Reynolds Metals Co. The yarn is claimed to reduce heat in tire use because of its characteristic as a good conductor of heat. [See TEXTILE INDUSTRIES for June, 1955, p. 169. for a discussion of steel wire as tire cord.]

Get the JUMP on Competition



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Cut distribution costs and increase profits — build *your new plant* on this ideal site at Fort Valley, Georgia.

- 200 acres of level terrain adjacent to Central of Georgia Railway, situated in heart of a thriving market of 22 million people.
- Located six miles west of city limits of Fort Valley, 34 miles from Macon.
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- Minimum flow at site 193,881,600 gallons per day.
- Also ample underground water supply.
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- Fast, reliable daily freight service via Central of Georgia Railway connecting directly with 15 major railroads and Seatrain at Port of Savannah.
- 5,670 foot frontage on State Highway 96, which connects with U. S. Highways 341 and 19.
- Population of 89,978 within 25-mile radius.

This site is adaptable to almost any type of industry. *Investigate* by writing, in strict confidence, for maps and complete data. The Industrial Location Specialists of Central of Georgia will gladly work with you on your re-location problems.

FREE 32-PAGE BROCHURE describing other desirable river sites will be sent on request. Write today!

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The Right Way . . .

CENTRAL OF GEORGIA RAILWAY

Air Force Prefers Nylon Webbing. Nylon webbing, rather than cotton webbing, is preferred by the Air Force for the $7,500 arresting barriers used to slow down landing fighter planes, the House Appropriations Committee was told by Col. C. E. Rankin, chief of the quantitative requirements group of the directorate of supply and services. Nylon is preferred because it stands up under weather conditions and the terrific strain of stopping the aircraft.

AATCC News. A new special research committee of the American Association of Textile Chemists and Colorists—the Committee on End-Use Performance Tests—has been established to better correlate AATCC test methods with end-use performance, and to promote new tests or combinations of tests to predict end-use performance. Charles A. Sylvester of the Du Pont Co. is chairman of the new committee. * * * Exhibit space for the 1955 National Convention of the AATCC was better than 75 per cent purchased by the end of June. . . . A registration of 2,500 members and guests is expected at the meeting, to be held September 22 to 24, at Atlantic City, N. J. * * * The Philadelphia Section of the Association will offer two courses of study during the fall of 1955. The first, entitled "Thermodynamics and Its Application to the Theory of Dyeing," will be given on Tuesday and Thursday evenings for 10 weeks, beginning September 27th. The second, "The Finishing of Textiles," will be

Brussels Textile Exposition Big Success

By a Special Correspondent

The Second International Textile Exposition in Brussels had exhibitors from 18 different countries housed in nine tremendous exhibit halls. The total area covered by booths exceeded 100,000 square meters—with about half the space occupied by manufacturers of machinery, equipment, auxiliary supplies, and chemicals. The remainder of the area was taken up with showings of fabrics and finished garments.

Every exhibitor was enthusiastic about the show and its effects on business.

Not only was this exhibition the biggest of its kind held, but it was also unusual because it started with the machinery and ended with the finished products actually made up and ready to wear. This concept of a textile exhibition is obviously radically different from that which is currently in vogue in America, and yet it appeared to be highly successful in Brussels. Whether it will pay off in the long run has yet to be determined, but its public relations value was such that other textile shows may wish to consider the potential impact.

Essentially textiles are everybody's business, and not since the days when animal skins were draped across the human torso has man been able to dispense with fabrics. The show management in Brussels recognized this fact and acted accordingly. The resultant displays dramatized the relationship of textiles to everyday life as nothing else has ever done. Mute testimony to the effectiveness of the plan were the Sunday crowds which paid for the privilege of being educated. All-in-all, it appears impossible for the industry not to reap rich benefits in the form of favorable publicity, a better understanding by the public of what the mills can produce, and increased sales of quality and unique fabrics.

So far as the machinery exhibitors were concerned, it was a good show. There were visitors from all over the world; a number of worthwhile orders were written up. American machinery men were emphatic in saying that it was the best show they had ever seen.

German, Swiss, and French representatives of machinery manufacturers agreed that it surpassed American exhibitions. One prominent machinery exhibitor from America said that his exhibit would have been much larger if he had realized the importance of the show ahead of time.

Among the exhibits could be seen machinery that was revolutionary, but the bulk of the displays covered the tried, trusted, and true—with a great deal of emphasis on reliability and service. A Frenchman pointed out that the final success of any machine depended on the ability of the manufacturer to supply parts and service promptly and effectively.

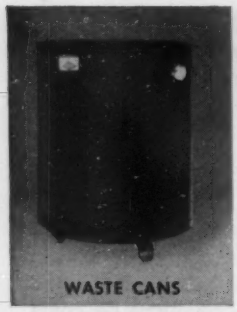
From a standpoint of business for the manufacturers of machinery, these things are evident: There is no burning desire by foreign enterprises to invade the American market; they are much more interested in South America, India, Syria, Pakistan, and other places where there are opportunities to sell large installations.

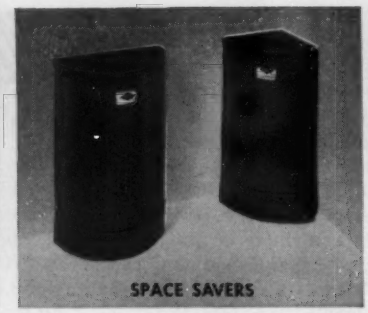
Some of the foreigners reported disastrous experiences with American mills that have caused them to sour on future business in the U. S.

There are, of course, language barriers that are hard to surmount and misunderstandings that will inevitably arise. But in the long run it is the lack of opportunities for big volume sales that really discourages them.

On the opposite side of the fence it looks as if American machinery manufacturers have had little appreciation of the sales that could be made abroad; many have not troubled to set up agents who could help them develop sales.

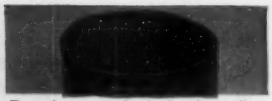
Comparatively few mill men from the U. S. came to Brussels. Perhaps language difficulties were to blame, or the cause may have been the costly travel; they missed an inspiring show.





Light in weight, easy to handle, easy to keep clean. C-D-F builds waste barrels, with or without casters. Reinforced metal handles. Kick bands can be furnished in metal or fibre. A good way to improve mill housekeeping is with these new half and quarter round cans. They save floor space, fit snugly against walls and corners. Remember, C-D-F can supply special fibre receptacles in any quantity, with top quality construction.

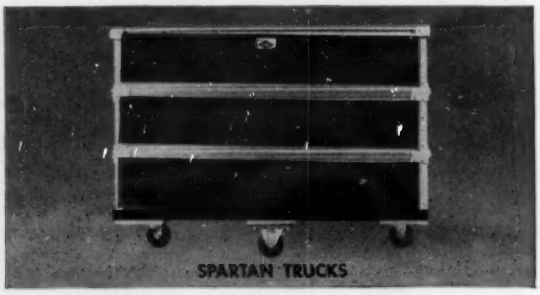
Nothing can be stronger, tougher, yet smoother than a C-D-F Roving Can! They stand up, stand out for years of reliable service. Smooth, seamless uniformity . . . from one sample can to a carload. Metal top rim is 16 gauge steel, rust resistant plated. Smooth and snugly fitted around can. Galvanized metal bottoms for longer life. Good stocks are at the C-D-F Spartanburg, S. C. plant.



Running synthetics? A rolled fibre top rim eliminates static charge.

A variation is a fibre top rim, turned and reinforced with a heavy wire ring.

You will look a long time to get a material that can take impact better than old Diamond Vulcanized Fibre, the father of all plastics. Fibre is half the weight of aluminum . . . workers do not push or lift useless weight. It will not crack or shatter under heavy impacts. It is smooth surfaced and resists water, oil and grease.



These C-D-F quality-built trucks last and last and last. Built to fit your dimensions, to fit the needs of your mill. Top rims have no overhang to snag elbows or materials. Centerband is curved to push away from spinning frame. No skimping on rivets. Smooth surfaces inside and out.

C-D-F builds and sells DIAMOND FIBRE RECEPTACLES

to move materials fast and safe...to last for years!

Looking for a big, reliable source of supply for your mill's requirements in roving cans, fibre trucks, barrels, waste cans? Think first of C-D-F, one of the world's largest manufacturers of quality vulcanized fibre with a separate division making a full line of fibre receptacles.

Here's the way C-D-F does business with you. From our receptacles catalog you get a good idea of the completeness of our products. Then you call the C-D-F sales office listed on the back cover.

C-D-F WORKS WITH YOU

A well-trained C-D-F sales engineer contacts you, works with your plant or maintenance engineer, studies your problem carefully. If you are in the market for Spartan Fibre Trucks, he checks the width of post alleys, the height of the ring rail and other limiting factors. He knows cotton . . . finds out the number and length of bobbins, the diameter of the spinning ring, how many bobbins must be doffed.

A BIG, RELIABLE SOURCE

Your order or problem is sent to C-D-F Bridgeport's Receptacles Division, where it is checked for the strongest, lowest cost method of construction. Quality hardware, the best in casters, all metal rust-resistant rims are used by C-D-F craftsmen. Deliveries are good.

C-D-F makes its own vulcanized fibre, so selection of uniform, top grade sheets is simple. We are sure of the source of supply . . . it's next door, inside the family.

Get started on the road to better receptacles buying. Call on C-D-F, write for that big catalog. For whatever you need to move or store materials fast, safe, economically, C-D-F can make for you, from genuine Diamond Vulcanized Fibre.

CDF *Continental-Diamond Fibre*

CONTINENTAL-DIAMOND FIBRE DIVISION OF THE BUDD COMPANY, INC.
NEWARK 11, DELAWARE

given on Monday evenings from 7:30 to 9:30, starting September 26th. Both courses will be held at the Philadelphia Textile Institute. Fee for the course on thermodynamics will be $35, and $20 for the course on finishing. Further information and reservations can be obtained from the Educational Committee, Philadelphia Section, AATCC, P. O. Box 5025, Philadelphia 11, Pa.

Cost of Cotton in Fabrics and Yarns. The following table shows the percentage cost of cotton in relation to the selling price of the fabric or yarn (with waste considered), based upon present textile prices.

Denims	60%
80-square print cloth	51%
Cotton bag material	58%
Towels	42%
Industrial fabrics	65%
Twill	53%
Duck	53%
Sateen	42%
10s single yarn	61%
20s/2 yarn	53%

This shows the importance of the price of cotton to the mill, and especially when some competing fibers are now 8 to 10 cents per pound cheaper than cotton.—National Bank of Commerce, Memphis, Tenn.

Garter Slippage Stopped. A. Booth and Son Ltd., Ilkeston, England, is producing a nylon stocking which is claimed to solve the problem of garter slippage. The smoothness of nylon yarn, with its consequent disadvantages, has been overcome by knitting into the welt at every third course a ridge

of 60-denier crepe nylon, which effectively holds the garter. The double welt consists of two threads of 45-denier nylon; and the counter-welt, which is designed to graduate the strain, is a combination of 15- and 45-denier yarns. A picot dip, which divides the welt from the counter-welt, incorporates the size mark and seam indicator. Production of 15-denier hosiery incorporating the new welt began several months ago.

Fashion Note from the West. Coats of cotton for sheep are the latest fashion on the western range, according to the New Mexico A & M Extension Service. The cotton sheep jacket is a new idea that has caught on with ranchers as a means of protecting the fleece from dust. Last winter the Extension Service carried out a demonstration which proved that

blankets kept four pounds of dust and dirt out of each fleece. Already ranchers have ordered more than 50,000 of the sheep jackets. The coats are made of ten-ounce cotton duck. They have a zippered pleat in front which takes up the slack so that sheep can wear the jackets after early shearing in cold spring weather.

The Red-Tape Curtain? The red tape involved across the U.S.-Canadian border in dealing in machinery parts is annoying and time consuming, according to the manager of a Southern Ontario tops mill. Canada is dependent upon the United States for much of its machinery, and consequently it is necessary to get good delivery on replacement parts. This is very often a difficult procedure as borne out in the following example: Six parts were ordered from the U.S. for some extractors for the scouring department. Due to a misunderstanding, two shipments of the same order were made, and because of U.S. customs regulations stating that in order to be returned the parts had to be either unordered or not to specification. The parts, which won't be called for again for years, had to be retained by the mill.

Employees Most Frequent Users of Taft-Hartley. NLRB's statistical report for the first quarter of 1955 shows that, of 413 charges of unfair labor practices filed under the Taft-Hartley Act, 67 per cent were filed by employees, 5 per cent by unions, and only 28 per cent by employers. In four out of five deauthorization elections, employees voted to revoke union shop clauses and to prevent such agreements by their union in the future. In 23 out of 37 decertification elections (62 per cent) employees voted to decertify their union.

News in Brief

Fur-Type Fabrics. Highlights from a recent paper presented by Don W. Gay of Du Pont's Textile Fibers Department: " . . . Fur-like fabrics fall into two fabric types, knitted and woven. The knitted coatings are made primarily on a specially constructed Wildman circular knitting machine. This ma-

chine usually knits a blend of 65 per cent Orlon and 35 per cent dynel directly from sliver. A 100 per cent dynel backing yarn is normally used. . . . The second fabric type is woven. These woven fur-like fabrics are normally made on plush looms. The pile is generally 65 per cent Orlon and 35 per cent dynel plus a backing yarn of cotton. . . . The knitted cloths run about 25 to 26 ounces and the woven about 29 ounces per 54-inch width. Prices on both types are about the same, $8.25 to $8.50 per yard for the light shades, with 75 cents to $1.50 extra for dark shades. Both the knitted and woven types must be sewn on fur machinery to achieve proper seaming. This special handling costs the coat manufacturer about $5.00 more per unit than a coat of an equally priced all-wool fabric. Generally, wholesale prices start at $49.75 for full-length coats of either the woven or knitted type. . . . Development work is under way in the mills on

POWELL VALVES . . . THE COMPLETE QUALITY LINE . . . POWELL VALVES

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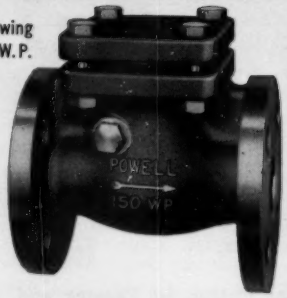
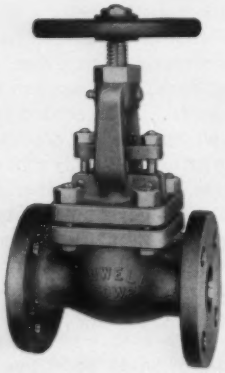
. . . THE COMPLETE QUALITY LINE . . . POWELL VALVES . . . THE COMPLETE QUALITY LINE . . .

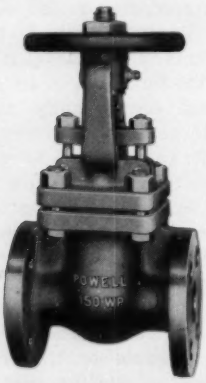
FIG. 2342—Flanged End Bolted Cap Swing Check Valve for 150 Pounds W.P.



POWELL CORROSION RESISTANT VALVES

FIG. 2495—Double Disc Flanged End O.S.& Y. Gate Valve for 150 Pounds W.P.





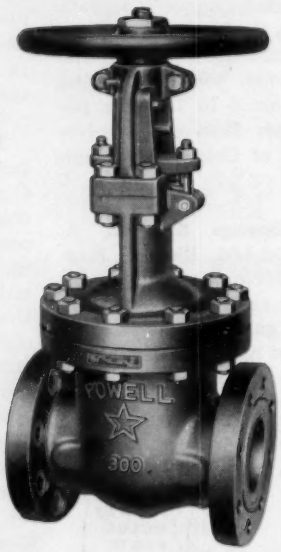


FIG. 2475—Stainless Steel O.S.& Y. Globe Valve for 150 Pounds W.P.

FIG. 3003SS—High Pressure Service Alloy Steel Gate Valve for 300 Pounds W.S.P.

POWELL VALVES . . . THE COMPLETE QUALITY LINE . . . POWELL VALVES

Powell can supply exactly the corrosion resistant valves you need . . . in a WIDE VARIETY of metal and alloys and all designs. You can be certain that every Powell Valve will give you dependable flow control.

Shown above are a few Powell Corrosion Resistant Valves. Investigate these . . . and the *complete* Powell line of quality valves that have a proven record of long, dependable service.

If no distributor is near you, we'll be pleased to tell you about our complete line, and help solve any flow control problem you may have. Write . . .

The Wm. Powell Company, Cincinnati 22, Ohio . . . . . 109th year

100 per cent Orlon, Orlon and wool, Orlon and nylon, and perhaps other blends. . . . It is conceivable that man-made silver fox type, man-made mink type, and man-made chinchilla type fabrics will eventually be developed."

Germany Keeps Quota on Most U. S. Textiles. In a recent list in the German Federal Bulletin, 85 per cent of all goods which Germany imports from the United States is now quota-free. However, all synthetic fiber textiles, including hosiery, and in effect most large-volume items of other fibers are omitted in the new list. Liberalization of the quotas will in practice apply principally to items of linen and hemp. Examples of liberalized items: binding yarns and twines made of coco yarns; knitted gloves made of 100 per cent silk or horsehair; linen or ramie handkerchiefs; men's, women's, and boys' garments of silk, linen, or hemp; and tablecloths, towels, and sheets made of silk, rayon, or ramie.

NAHM to Meet in Boca Raton. The 1956 annual meeting of the National Association of Hosiery Manufacturers and the Hosiery Industry Conference will be held at the Boca Raton Hotel and Club, Boca Raton, Fla., April 30-May 1, according to a recent announcement.

Cotton Loan Rates Announced. The basic loan rate for 1955-crop upland cotton (31.70 cents per pound) will apply to Middling 7/8-inch cotton at average location, the USDA announces. Since the base quality used by the spot and futures markets is Middling 15/16-inch, the basic support rate is converted to a Middling 15/16-inch basis by adding the average market differences between Middling 7/8-inch and Middling 15/16-inch to the Middling 7/8-inch rate. The rate for 1955-crop Middling 15/16-inch will be 180 points above the rate for Middling 7/8-inch. Loans will be made on the gross weight of the cotton. Loans on American-Egyptian, Sea Island, and Sealand cottons will be made on a net-weight basis. Minimum level of price support for 1955-crop extra long staple cotton is 55.20 cents per pound, with a minimum level for American-Egyptian cotton of 55.32 cents per pound, and for Sea Island and Sealand cottons of 50.32 cents per pound.

Wool Map Available. A world wool map, showing the wool production and consumption figures for each country, in full color, 60" x 40", is available for 85 cents from The Wool Bureau, Inc., 16 West 46th St., New York 36, N. Y.

1955 Olney Medal Winner. Dr. Miles A. Dahlen, adviser on dyes, intermediates, and related chemicals in the technical division of the Organic Chemicals Department of E. I. du Pont de Nemours & Co., Inc., is the winner of the 1955 Olney Medal, highest award of the AATCC, presented for "outstanding achievement in the field of textile chemistry." Presentation will be made at the AATCC convention in Atlantic City.

Japan to Cut Cotton Yarn Output. The Japanese Ministry of International Trade and Industry has

"The Pay Check with the Fringe on Top"

The illustration and headline above and the text below appeared in a recent issue of "The Joanna Way," employee publication of Joanna (S. C.) Cotton Mills. Management of Joanna is cognizant of the importance of keeping employees conscious of "fringe benefits" provided by the company. Accompanying this statement were descriptions and pictures illustrating benefits such as vacation pay, retirement fund, wage bonus, low house rent, etc. Others were scheduled to appear in subsequent issues of the publication.—The Editors.

Every week when we get our pay checks most of us quickly look at them to be sure the amount of pay is correct. At a glance we can tell if the number of hours worked is correct and the pay correctly computed for that many hours.

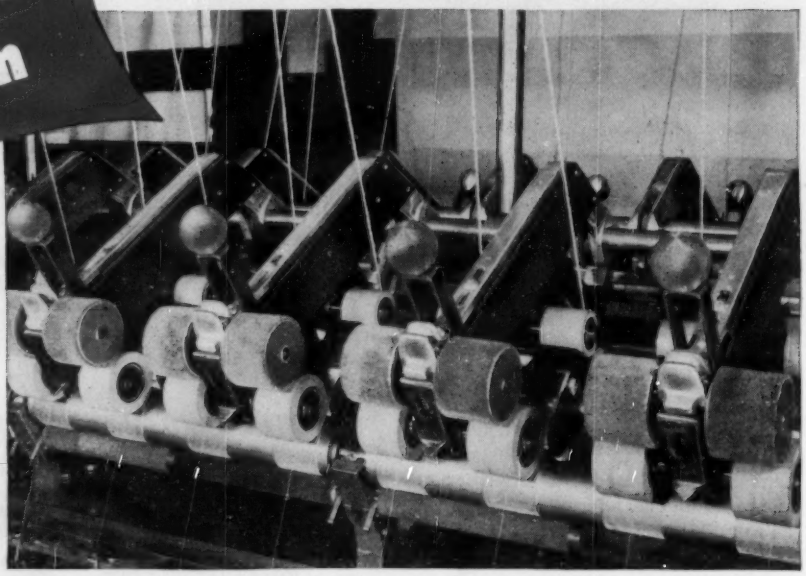
However, there is a lot more to our pay than shows up in the weekly pay checks; we collect part of our pay in "hidden ways," in ways that do not show up on our weekly checks. This additional pay is usually called "fringe benefits."

Among the "fringe benefits," which make up a part of our pay, are vacations with pay, wage dividends, services offered by the Joanna Foundation, low-cost rent, service awards, free group insurance, workmen's compensation, unemployment insurance, federal old age benefits, pensions, annual physical examinations, and others.

If you take the amount spent by the company during the year for these extras and divide that figure by the number of employees, you will get an average amount which each employee receives during the year. Our extra benefits amount to well over $300.00 per year for each of us. Add that amount to your yearly earnings to see what your pay actually is.

American System

Latest top roll weighting arrangement on Whitin American Superflex Spinning Frame. Can be furnished with Quik-Set ratch changing mechanism.



only 3 machines

- Whitin Roto-Drafter
- Whitin Quik-Set Roving
- Whitin American Superflex Spinning

no more than 5 processes

1. Roto-Drafter (1, 2 or 3 processes)
2. Roving
3. Spinning

The most economical way of producing high quality yarns from wool, synthetics, or blends of both from staple up to 8¾". Investigate now to find out how leading mills are profiting from these new Whitin machines.

P.S. Your present roving and spinning machines may be changed over if you wish.

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

asked for spinners' agreement to a 20 per cent cutback in cotton yarn production, and a reduction of 100,000 bales in raw cotton imports to shore up the sagging market.

Do These Problems Sound Familiar? "The majority of Canadians now make their living from domestic manufacturing industries. It is time our tariff structure recognized this fact." — Brinley Taylor, vice-president, Courtaulds (Canada) Ltd. " . . . the solutions [to Canada's present and future problems] will be much more satisfactory if we demonstrate that free enterprise can do these things, as government cannot or will not help solve the problems that are bound to show up in an economy as changing and as vital as we are blessed with. . . . In my mind [the Guaranteed Annual Wage] is going to have a very restrictive and hampering influence on future progress and may therefore be a great deterrent to expansion of employment. It seems clear that the Guaranteed Annual Wage is meant to be a decisive step to eliminate private enterprise."—N. P. Petersen, president, Canadian Acme Screw and Gear Ltd.

Broad Fabric Production Up. Cotton broad woven fabric production in the first quarter of 1955 was 2.596 billion yards, up four per cent above the fourth quarter of 1954 and three per cent above the first quarter 1954 level, according to the Bureau of the Census, U. S. Department of Commerce. Largest gain was shown by "other woven cotton fabrics and specialties" (drapery and upholstery fabrics, corduroys, velvets, and plushes), up 14 per cent over the last quarter of 1954 and 17 per cent over the first quarter of last year; gains over last year's fourth quarter were marked up in all categories except colored yarn fabrics (down three per cent), and towels, toweling, and dish cloths (down one per cent).

News in Brief

Packaging Show to New York. For the first time in its 10-year history, the Society of Industrial Packaging and Materials Handling Engineers will present its annual Packaging and Handling Exposition in New York City, at Kingsbridge Armory, September 20-22.

MERCHANDISING NOTES

Du Pont announces the largest promotion yet undertaken in support of nylon sheets, including heavy consumer advertising, publicity, trade advertising, direct mail, and dealer aids. Four-color spreads will appear soon in *House Beautiful, House and Garden, Ladies Home Journal, Better Homes and Gardens,* and *Good Housekeeping.* Nylon sheets are now made by Cannon Mills, Glen Raven Knitting Mills, Julius Kayser, John Matouk, Pepperell, J. P. Stevens, and Van Raalte.

E-Z Mills, Inc., will include in its fall line of children's sleepers a model with soles made of Riegel Textile Corp.'s Plastic Dot fabric. The plastic dots provide a nonskid feature.

Fashion Silk is producing a satin of Orlon and silk, which is used in current creations by designers Ceil Chapman and Hannah Troy.

Flexsleev Corp. has been granted two patents on a method of sleeve construction which prevents garments from pulling out at the waist when arms are raised, giving the wearer freedom of arm movement.

Walter E. Heller & Co., factors, note a marked upturn in the number of carpet firms using factoring.

James Lees & Sons Co. uses color as the keynote in its merchandising plans for the fall selling season. A complete promotion for its retailers is built around the appeal of color in its products.

Joseph Bancroft & Sons Co. has defined three of the terms most often used to describe the new "easy-care" fabrics. Bancroft's definitions: "little or no ironing"—may or may not be ironed, according to the wearer's wishes; "wash, drip dry, and wear"—may be placed on a hanger to drip dry, or may complete the entire cycle in an automatic washer, including the spin-dry; "no iron" or "never iron"—ironing is not only unnecessary, it is definitely undesirable.

National Association of Hosiery Manufacturers, prompted by the success of its sales training caravan, "Show Time," [see TEXTILE INDUSTRIES for March, 1955, p. 66] has begun free distribution of a pictorial bulletin called "Show Time" among hosiery department personnel in stores across the country. The Association also offers loan of a "Show Time" soundslide 35-mm film, plus a 33⅓ rpm record accompanying it to buyers for in-store training sessions.

Pellon Corp. has introduced "Lilion," a printed nonwoven fabric for women's outerwear.

Schwarzenbach Huber Co. and **Anglo Fabrics Co.** have joined forces to produce a dyed-to-match line of wool flannel gloveskin and silk broadcloth. A joint color card exhibits identically dyed swatches of the two materials in ten colors.

J. P. Stevens & Co., Inc., has introduced a special line of sheets and pillow cases printed to tie in with the new Disney motion picture, "Lady and the Tramp." The bed linens are packed in a folding carton in the shape of a cradle, reusable as a doll cradle.

Travis Fabrics, Inc., have arranged with Walt Disney Productions, Inc., for the exclusive use of Disney characters on Travis fabrics, the first such franchise granted in the synthetic fabrics field.

Jim, it's about time to pull out stakes. Who can we get to handle the deal?

Contact COMER. They'll buy & liquidate, everything for us.

If your plans call for liquidation, contact Comer first. Comer offers you a simple 3-step plan which has proved highly successful to other mills. It can do the same for you.

1 Comer will give you a fair appraisal

McCanless Mills, Davison, N. C.—Acquired October, 1954; Sold December, 1954. Fast action like this requires experience, coordination and contacts. Let us add you to the list of our satisfied clients.

2 Comer will buy or liquidate, single pieces or entire properties

Mandeville Mills No. 1, Carrollton, Ga.—Acquired January, 1954; Sold February, 1955. For 22 years Comer has served the textile industry. In 1954 this experience enabled Comer to sell over $4,000,000.00 worth of machinery.

3 Comer will relocate industry to your former site

Mandeville Mills No. 2, Carrollton, Ga.—Acquired January, 1954; Sold May, 1954; A quick call started things moving for this mill. If you're selling, Call Comer first and talk things over.

COMER MACHINERY

If you're selling, we're buying. Write, wire or call now.

Comer Machinery Co.

680 West Peachtree St., Atlanta, Ga., EM. 5682

AN EXECUTIVE Views

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

Import Quotas Would Help

BY THE time this is read, the opportunity may have passed, but if there ever was a period during which the cotton farmer and the textile mill need to present a united front, this is it. The need is just as great from both standpoints because the irreparable damage which the textile industry is about to suffer is going to be just as irreparable when applied to the cotton farmer.

What we are talking about, of course, is the knife thrust which the industry received from the American State Department as a result of negotiations conducted at Geneva, Switzerland. These negotiations were conducted under the framework of the General Agreement on Tariffs and Trade (GATT) with some thirty-four nations participating. At the end of the conference, a blithe, happy announcement from the State Department indicated that the concessions "by the United States were moderate reductions of rates on some carefully selected cotton textile items."

Very Carefully Selected!

We certainly cannot quarrel with the State Department's announcement that the cotton textile items were "carefully selected." In fact, they were so carefully selected that they struck practically the entire industry. Additionally, they were not very moderate because the tariff cut on many items was equivalent to much more than the total industry per yard profit on these fabrics.

Why the United Front?

We have here the picture of a major American industry which has been going through a period of depression for the last three years and which has now been hit a staggering blow by the State Department. Few people within the industry will question the severity and the grave danger of the situation.

In like manner, the predicament of the American cotton farmer is equally grave. If it is true (as someone has said) that this constitutes a major step in the transfer of the American textile industry to Japan, then the American cotton farmer had better be thinking about where he is going to sell his cotton. He may hope to sell it to the Japanese, but the truth is—and he knows it just as well as we know it—that the Japanese are going to buy their cotton wherever they can get it the cheapest.

That place is not going to be the United States because our raw cotton price is artificially supported and is produced with much higher priced labor than is foreign cotton. Japanese mills are already buying two-thirds of their cotton from countries *other than* the United States, and neither the "One World" philosophy nor any other philosophy is going to make them buy American cotton unless they can get it cheaper.

The cotton farmer may think that the mill executive is doing a lot of scare talking, but let's take a quick look at the figures. The Japanese government recently announced that American firms contracted to buy 19 million yards of cotton textiles during the month of April, the latest month for which figures are available. By way of comparison, total cotton textile imports from Japan for the *nine year period,* 1926 to 1934, were 18 million yards. Again, the April 1955 figures are double those for March 1955 and *five times* the annual monthly shipments for 1954.

These millions and millions of yards of cloth represent cotton that the American cotton farmer is *not* going to sell to the American textile industry. Keep in mind, too, that these terrifically heavy imports for April 1955 were before the announcement of the Geneva tariff cuts in June. The best informed opinion that we have been able to obtain indicates that now that the period of debate is over and the issue has been decided in favor of lower American tariffs, the Japanese are really going to show us what they can do.

The Answer

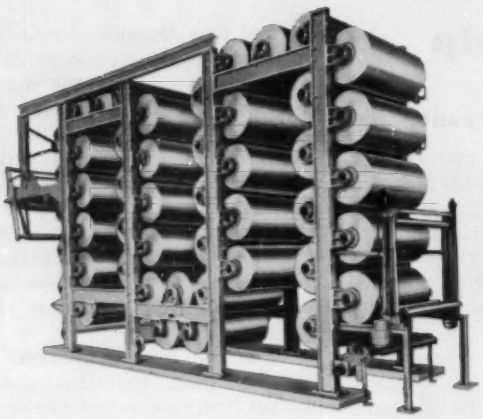
As far as we have been able to find out, absolutely nothing can be done now about the Geneva reductions. The agreements have been signed by the many nations which participated in the Conference and, as far as our own country is concerned, they already have the force and effect of a treaty obligation. It is too late for Congress to do anything about rescinding the Geneva action.

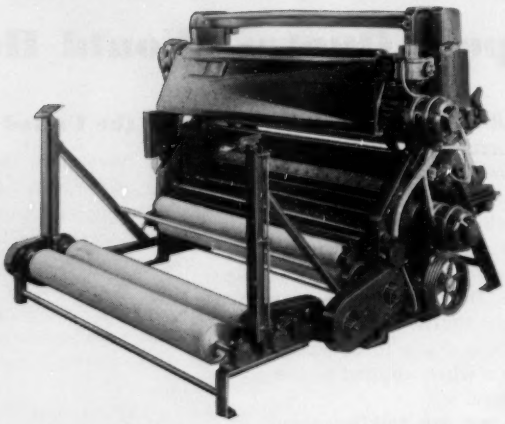
However, either Congress or the Administration could give the industry relief by establishing some sort of limitations as to the amount of goods which could come into the

FINISHING

number six of a series depicting

MORE AND BETTER TEXTILE PRODUCTION WITH HYATTS





(Above, left.) Morrison Dry Cans equipped with a Hyatt Hy-Load Bearing at every shaft end position.

(Above, right.) Hermas Model AV Shear in which several sizes of Hyatt Hy-Load Bearings are employed on the revolvers.

Heat, humidity and high stress can play havoc with ordinary bearings in textile finishing equipment. That's why leading manufacturers of dry cans, washers and many other finishing machines depend on Hyatt Roller Bearings engineered to withstand such rigorous conditions.

Moreover, finishing is another critical stage where the slightest oil stain can quickly convert a profitable "first" into a costly "second." Hyatt housings are securely sealed to prevent lubricant leakage—another reason why you're always sure of *more and better textile production with Hyatts!* For further details on the profitable application of Hyatt Roller Bearings to textile machinery, request Bulletin T-54 from Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT ROLLER BEARINGS

STRAIGHT BARREL TAPER

country for a given period. It is quite true that even a small quantity of low-priced Japanese goods can thoroughly disrupt the market and distort differentials between yarn counts and cloth constructions, but the quota route seems to be the only one now open to the industry. Peril points, escape clauses, and other such rigmarole are not going to do any good because by the time the industry proved it was hurt, and managed to convince somebody of the fact, it might be too late.

What is needed, and needed promptly, is definite, effective action by the Administration or by the Congress to establish specific quotas for the importation of textiles from Japan.

If something like this is not done, then it might be a good idea to set up an exhibit in the Smithsonian Institution in Washington which would show how cotton is planted and cultivated, because of the historical significance of such an exhibit to later American generations. A frivolous and somewhat silly idea? Perhaps so, but don't forget about the dinosaur.

Important Labor Case

An important labor case is scheduled for trial in the United States Court of Appeals for the Fourth Circuit sometime in the near future, and the issue may have been decided by the time this appears in print. The case in question involves the National Labor Relations Board in an action against Truitt Manufacturing Company, a corporation doing business in the steel products industry.

It seems that several years ago the union made a demand upon the company for a wage increase of 10¢ an hour. After negotiating with the union, the company made a counter offer of 2½¢ an hour, which was refused—and a strike resulted. The strike was of relatively short duration and did not decide the issues involved; whereupon the union repeated its demand for a 10¢ an hour increase, and the company replied that it was unable to grant such an increase because of its competitive position in the industry in its particular area.

Thereupon the union demanded permission to have a certified public accountant examine the books and other records of the company to ascertain whether or not the company was justified in refusing the increase on financial grounds. When the case came to the National Labor Relations Board the demand of the union was upheld by the Board, and the matter then went to the Federal Courts where it is now pending.

If every corporation in the country can be forced to disclose the intimate and confidential details of its financial transactions, its cash reserves, and its cost

(Continued on page 194)

AUGUST

Aug. 22-Sept. 9—International Wool Textile Research Conference, Sydney, Geelong, and Melbourne, Australia.

Aug. 25-26—Annual convention, Southern Hosiery Manufacturers Association, Hotel Roanoke, Roanoke, Va.

SEPTEMBER

Sept. 8-9—Fall meeting, The Fiber Society, Massachusetts Institute of Technology, Cambridge, Mass.

Sept. 10—Meeting Southeastern Section AATCC, Ralston Hotel, Columbus, Ga.

Sept. 11-16—128th national meeting American Chemical Society, Coffman Memorial Union, Minneapolis, Minn.

Sept. 14-16—Annual Southeastern Personnel Conference, Duke University, Durham, N. C.

Sept. 16—Meeting Western New England Section AATCC, Rapp's Restaurant, Shelton, Conn.

Sept. 16-17—Annual meeting, Combed Yarn Spinners Association, The Homestead, Hot Springs, Va.

Sept. 20-21—The Chemical Finishing Conference sponsored by the National Cotton Council of America, Chalfonte-Haddon Hall, Atlantic City, N. J.

Sept. 20-22—Packaging & Handling Exposition, Kingsbridge Armory, New York City. Sponsored by Society of Industrial Packaging and Materials Handling Engineers.

Sept. 22-24—National convention, AATCC, Chalfonte-Haddon Hall, Atlantic City, N. J.

Sept. 29-30—Annual outing Chattanooga Yarn Association, Lookout Mountain Hotel, Chattanooga, Tenn.

Sept. 29-30—101st annual meeting of National Association of Cotton Manufacturers and 3rd annual meeting of Northern Textile Association, Wentworth-by-the-Sea, Portsmouth, N. H.

Sept. 29-30—Fall meeting of the Southern Textile Methods and Standards Association, The Clemson House, Clemson, S. C.

OCTOBER

Oct. 1—Fall meeting, Alabama Textile Operating Executives, Thach Hall, Alabama Polytechnic Institute, Auburn, Ala.

Oct. 4—Annual meeting The National Federation of Textiles, Inc.

Oct. 13-14—49th annual meeting North Carolina Textile Manufacturers Association, Carolina Hotel, Pinehurst, N. C.

Oct. 17-19—Fall meeting, National Council for Textile Education, The Larches, Hopedale, Mass. Hosts: American Textile Machinery Association.

Oct. 17-21—43rd National Safety Congress and Exposition, Conrad Hilton, Congress, Morrison, and LaSalle Hotels, Chicago, Ill.

Oct. 27-28—Annual convention, The Quartermaster Association, Conrad Hilton Hotel, Chicago, Ill.

Oct. 29—Fall meeting Textile Operating Executives of Georgia, Georgia Institute of Technology, Atlanta, Ga. Subjects for discussion: Slashing, weaving, power, and maintenance, 9:00 A.M.

NOVEMBER

Nov. 3-4—Annual Mid-Atlantic AIEE Textile Conference, North Carolina State College, Raleigh, N. C.

Nov. 9-11—19th annual Time and Motion Study and Management Clinic, sponsored by the Industrial Management Society, Sherman Hotel, Chicago, Ill.

Nov. 14-18—Chicago Exposition of Power and Mechanical Engineering, Coliseum, Chicago, Ill.

Nov. 28-Dec. 1—Air Conditioning & Refrigeration Exposition, Auditorium, Atlantic City, N. J. Sponsored by Air Conditioning & Refrigeration Institute.

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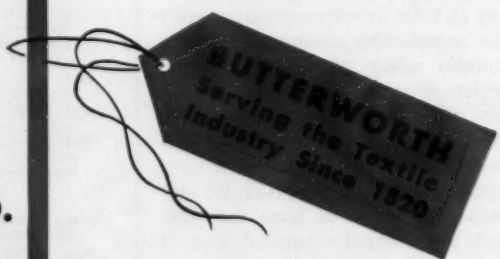
Here is the most important development in tenter chain design in five years — the new Butterworth Double "O" Link that cuts chain costs up to $1 per link. In this new design, the chain body is 25% stronger without sacrificing interchangeability. Reduces down time by giving longer wear. The new design is also available in mercerizing tenter chains. For lower maintenance, extra strength, ask to see the new Butterworth Double "O" link today.



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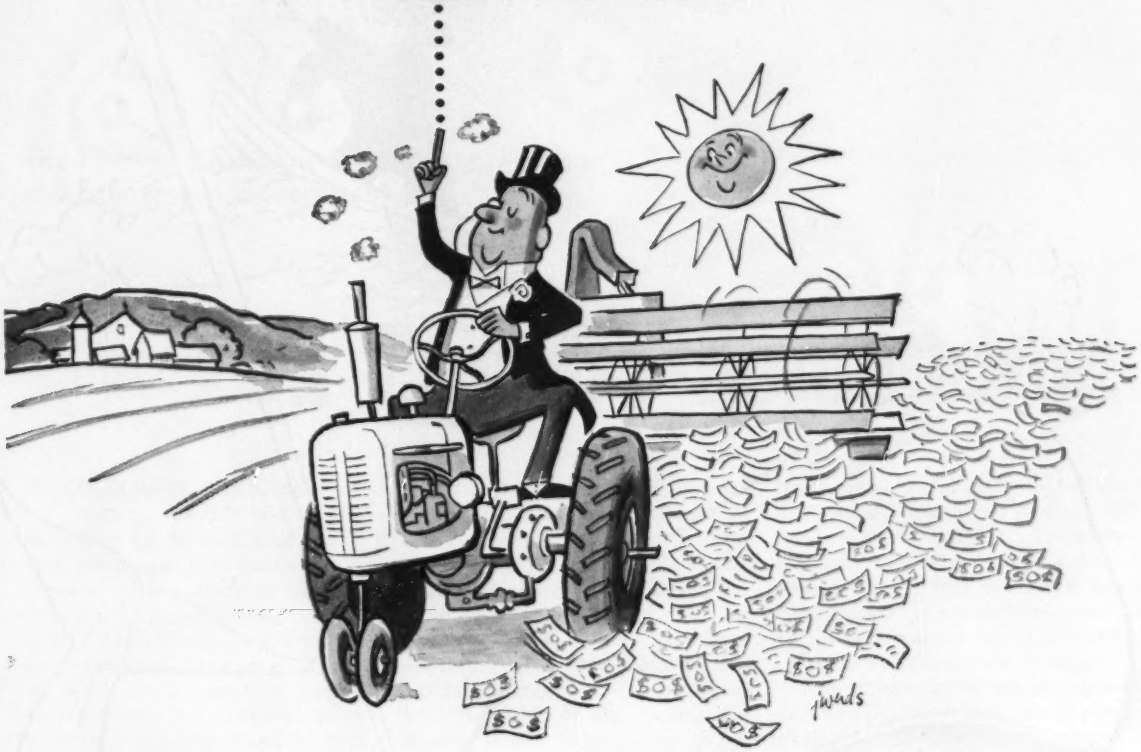

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TEXTILE MACHINE WORKS, READING, PENNA.

The Hoover Commission Report and Economy in Government

You Can Do Something!

THE OLD saying that nothing is so certain as death and taxes is indicative of the feeling of futility and frustration that confronts the average citizen when he hears of the constantly mounting cost of government. The astronomical figures involved, and the general tendency on the part of bureaucrats to endeavor constantly to expand their operations and budgets, leave most citizens with a feeling of helplessness in so far as a remedy for the situation is concerned.

Past recent experience, however, shows that something can be done to increase efficiency in government and reduce the mounting cost of government. The Hoover Commission, which functioned in the early postwar years, studied the reorganization of government departments carefully and offered 175 recommendations for increased efficiency and economies. Of these, some three-fourths were adopted and have already resulted in substantial savings.

Now, a *new* Hoover Commission has been studying the organization of the Executive branch of the government. Thirteen task forces set up by the Commission have conducted studies to determine the causes of waste and inefficiency in the federal establishment.

The personnel of these task forces includes some 200 experienced business and industrial executives—men who have been outstandingly successful in establishing efficiency and economy in their own organizations. Among them are such leaders as Harry Erlicher, former vice-president and purchasing agent of General Electric; Charles R. Hook, chairman of Armco Steel; Thomas D. Jolly, vice-president of Alcoa; Admiral Ben Moreell, chairman of Jones and Laughlin Steel; and Charles J. Stilwell, president of Warner and Swasey.

The Commission task forces have found that the possibilities for savings, without impairing government functions, are enormous. These are typical of possible savings: the Defense Department could lop off $2 billion a year through better inventory control and more efficient buying; economy in handling paper work of government could save another $1 billion; improvement in civilian employee administration, reducing the 25 per cent annual turnover, together with some reduction in numbers, would save $1 billion without hardship.

The Hoover Commission has completed the major portion of its studies and has rendered its reports and recommendations to congressional committees and administrative agencies concerned. Already, opposition has developed on the part of bureaucrats to many of the recommendations. Congress has done little about these recommendations, mainly because it has received few expressions of favorable public opinion urging it to act on these recommended changes.

What the reader of this magazine needs to realize is that the responsibility for getting these economies adopted rests with himself in the final analysis. You are the man who votes and, because the men in Congress from your area are particularly sensitive to votes, the opinions you give them will carry weight.

If you are like the average businessman, you are completely tired of having to pay and pay and pay a lot of your money in federal taxes, only to watch it go down the drain in wastefulness and extravagance. Now, you can do something about it—you have a compelling reason to write your Senators and Representatives in Congress to say that you are tired of high federal taxes and federal extravagance, to say that you want them to study the Hoover Commission recommendations and to put these recommended economies into effect.

Or better still, you can discuss this matter with your representatives while they are home from Washington.

W. J. ROOKE
Chairman of the Board
W. R. C. Smith Publishing Company

the story of good running work

By Drake Bendlair

EXCLUSIVE

Here is "Must" reading for everyone concerned with mill quality — from president to operative — and understandable by both.

Here's how it came about:

A spinner asked a question.

An overseer dug deep into laboratory files and his own experience for the answer.

The question — "What made so many ends come down today?"

THE TIE that binds our textile family together is the ready acceptance of our products by the person or firm which buys them. This acceptance has been good because our quality has been good. Quality, therefore, is our talent. It is what we sell.

But there comes a time in most mills when a certain question is asked by most spinners. The question is:

"What made so many ends come down today?"

And the related question:

"What made our warps run so badly today on the looms?"

This report gives *some* of the answers. Not *all* of them.

The story starts when the overseer looks at some bad work in spinning. While there, he looks at the set of sides which apparently is running the worst of all. The attractive young spinner puts the "ends-down" question to him, and here is his reply.

"Glad you asked that question, Jenny. It shows that you appreciate how good our work usually runs. I'll show you how we track down the cause of this flurry of ends down, and also how we figure that this kind of trouble is distributed in spinning, and in later processes such as weaving."

"But why *weaving?*" Jenny asked.

"Because we make cloth in this mill," the overseer said, "and we *sell* cloth — not sliver, or roving, or yarn. It's important for us, in carding for example, to know the effects of our work not only in spinning, but also in the cloth which we sell to our customers."

"I see," Jenny said. "But why use this day as a sample? It usually runs better."

"Because that's the story of good-running work — to know what the *worst* is costing you and the later processes, so that supervision and operatives can put that little extra effort into their jobs to avoid, if possible, the kind of trouble which you are having today."

1. "HERE'S JENNY'S TROUBLE—AND THE KIND WE TRY TO AVOID," THE OVERSEER SAID

1. **"AN END COMES DOWN** on your sides, Jenny, at about 8:05 A.M. You don't think too much about it. It's part of your job. . . ."

2. **"BUT THIS ONE** is a different kind of end down. It's NU trouble. It keeps coming down. It comes down at 8:50, 9:35, and again at 10:20, 11:05, 11:50, 12:35, and 1:20. Since you don't go to the trouble of marking the location of each end down, you don't realize you're getting up the same end until . . ."

3. **". . . . 2:05 P.M.** when you flag it. But it has been down most of the day, and the section man will come and work on it. But he won't fix it. It *can't* be fixed. It will start to come down again just as soon as he leaves. Why? Because there's nothing wrong with the spindle, the traveler, or the rolls. The trouble's in the roving. It's what the lab calls nonuniformity, or NU. How do we know, and how does NU affect ends down? Read the explanation at the right."

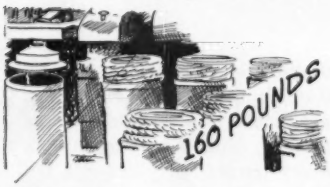
2. HERE'S HOW DEFECTIVE SLIVER MAY GET INTO ROVING AND SPINNING

We traced the ends-down trouble to some uneven drawing sliver. Later on, we will see some mechanical defects which cause this unevenness. But right now, let's recall that our theory is to see the worst possible results from this problem, so that we will all have a full appreciation of our usually good-running work. And so we will also know how important our jobs are to those people who run our work at the later processes.

Let's see then how much defective work would get into the spinning room, if just one drawing delivery ran eight hours of uneven drawing, and assuming of course that the mechanical defect escaped the attention of the operative or fixer during that period.*

*Please note we use drawing only to illustrate this problem. NU defects can get into our work at any process from opening to spinning.

WE RUN ABOUT 160 POUNDS of drawing sliver from one drawing

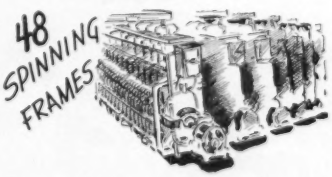


delivery in eight hours. If the mechanical defect causing unevenness is not caught, we would have about 160 pounds of sliver going to the roving frames. Let's determine approximately how long it would take the roving frames to get rid of this troublesome sliver, and about how many bobbins of roving would be made from it.

WE HAVE EIGHT ROVING FRAMES which take care of this particular stock. We make a 20-oz bobbin to fit our spinning creels. It would take about 39 hours for us to get that 160 pounds of defective sliver out of the roving department and into spinning. Because the sliver would be scattered over several frames, we would

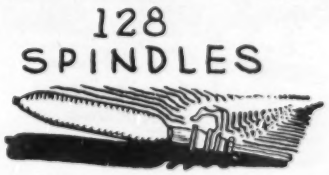
probably make more than 128 bobbins of roving from it.

WE HAVE 48 WARP SPINNING FRAMES on this stock. Our roving hauler has a regular schedule for laying up roving. If he follows



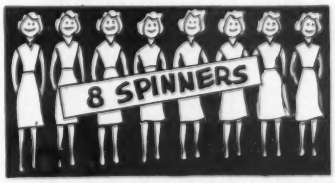
this normal schedule, we estimate that one or more of the 128 bobbins of roving will be creeled into each of these 48 spinning frames. At an average front roll speed, each of these bobbins of defective work will run in the spinning room about 32 hours.

THE WIDELY SCATTERED DEFECTIVE STOCK will probably affect 128 spinning spindles, on



single-creel work. Thus, there will be 128 spinning spindles which will run as badly as the one we saw on Jenny's set of sides; if we assume the worst possible results from this defective sliver.

WE HAVE EIGHT SPINNERS on these frames, including Jenny. Thus, each of these spinners will have the same trouble that Jenny had with bad-running work and



ends down. Since the defective work will stay in the spinning room 69 hours (including the lag time from roving), the total number of spinners affected would include those on all three shifts.

The defective stock, then, from one delivery of drawing—if operated 8 hours—will cause trouble in the roving department about 39 hours, affect 48 spinning frames, 128 spinning spindles, and eight spinners including Jenny. It will stay in the spinning about 69 hours and will cost the spinning operatives a lot of extra work, as will be seen on the following pages.

Therefore, when we see how the worst possible distribution of such defects can occur, we realize that all the extra efforts we make to keep machines and jobs in order are not just a lot of unnecessary work.

TURN PAGE FOR THE RESULTS OF NU DEFECTS IN SPINNING.

HOW WE KNOW IT'S NU TROUBLE

Our lab took the bobbin of roving from Jenny's set of sides and ran part of it through the uniformity tester, which measures the nonuniformity. We call it NU, for short. NU simply means the variation from the size the roving ought to be.

But in the case of Jenny's bobbin, the machine showed up a weak place in the roving about every foot. This frequency gave us the clue to the machine which was causing the defect. It is the same as the amount of draft on our one-process roving times the circumference of the front roll of the draw frame. Therefore, we knew that the trouble was probably coming from drawing.

A check of the drawing proved that the tester was right. The trouble was corrected, but not before much below-par sliver had been produced.

How Variations in Drawing Cause Ends Down. Our lab has made careful tests on variation and NU. The lab has set a standard NU for each process, because we realize that we can't make textile strands perfectly. But the lab tests show that when these standards are broken, and NU goes beyond these limits, the results in spinning ends down are very serious.

For instance, if NU at drawing goes 5% or more over our standard, we will have an increase in spinning ends down when that stock gets to the spinning room. This means *extra* ends down in spinning. The amount of extra ends down will vary, but for the weak place in Jenny's roving, we have used this figure — 15 extra ends down per thousand spindle hours. In plain language, that means about 1.3 extra ends down per hour on that *one* bobbin of roving which was taken from Jenny's sides.

Now, if there was only one bobbin of roving made of this type of sliver, the results would not be too serious. But there were many more than that. Let's take a look at how many were produced, and where they went, and what effect they had on the whole spinning room, after which we will take a look at their effect on later departments.

3. UNEVEN STOCK MEANS EXTRA WORK AND WASTE IN SPINNING

The overseer of carding said to Jenny,

"You've seen how just one delivery of drawing can produce enough stock to scatter over a large section of the spinning room. Now, I want to show you a chart which we use in training our second-hands, section men, fixers, and some operators. We use this chart because we want all our key men to know the reasons for the instructions which we give them. And because we want them to understand why we need that extra bit of carefulness and maintenance in order to keep our reputation for good-running work."

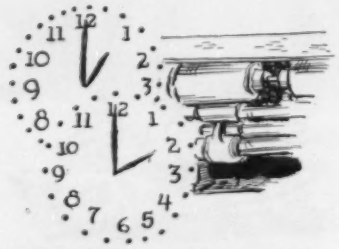
"Why, this chart even shows waste," Jenny said.

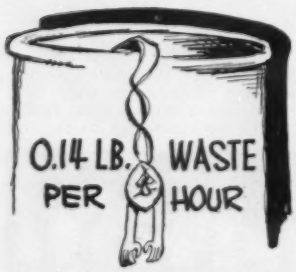
"That's right. But remember this chart is based on the assumption that someone doesn't catch that mechanical defect on the drawing before it runs eight hours."

"And it also shows," Jenny added, "how much trouble can be avoided if someone *does* catch that defect before it runs eight hours."

"You're learning fast."

(Condensed on this page is what the overseer had to say about this chart which he prepared for supervisory training.)





On Jenny's set of sides alone, we see that this defective work would cause many extra ends down. There would be 21 extra ends down an hour on Jenny's job. This amounts to such a large figure because there are 16 or more of those defective roving bobbins on Jenny's set — if we assume that the 128 bobbins of roving are distributed evenly over the spinning frames.

If we estimate that Jenny can get up about 5 ends per minute, then we can easily see that she would spend about 4 minutes of every hour in extra work, repairing those 21 breaks which occur on the defective stock. The actual time spent by Jenny on this extra work would be 4.2 minutes every hour. This amounts to 7 per cent of her time.

If we figure that Jenny takes 10-12 minutes to make a round of her job, we can estimate the amount of waste made from those 21 extra breaks per hour. If we estimated that the end was down 10 minutes each time, there would be a total of 210 minutes of idle spindle time per hour (21 breaks x 10 min). The waste would amount to 0.14 lb for every hour.

With a similar estimation, we can establish the theoretical production loss. It would amount to 0.14 lb each hour. However, the practical loss would be much greater. Since Jenny is human, not every one of her piece-ups will be perfect. Some won't pass the snick-plates on the spooler; and we will have further losses all along the way, as the result of those 21 ends down.

Below we have a summary of what those extra ends down really mean to the spinning room as a whole. On the basis of one hour, the figures are not too impressive. But when we realize that each of those 128 bobbins of defective work will run 32 hours on the spinning frame, we see that we have to multiply each of the hourly figures by 32.

The total ends down from this defective work would amount to 5,376. The total amount of extra work for *all* spinners on four shifts would be 1,075 minutes. That is the equivalent of 2 and 2/10 full days work. There would be 36 pounds of waste produced, and there would be a loss of 36 pounds of production.

In this summary, we have the dollar-and-cents reasons why we should continue to watch our work and machines carefully, so that Jenny and other people in later processes do not suffer.

SUMMARY

	Totals
1. Ends Down: 21 x 8 spinners — 168 ends down per hr x 32 hrs	5,376
2. Extra Work: 4.2 min x 8 spinners — 33.6 min per hr x 32	1,075 min
3. Waste: 0.14 lb x 8 spinners — 1.12 lb per hr x 32	36 lb
4. Lost Production: 0.14 lb x 8 spinners — 1.12 lb per hr x 32	36 lb

4. THE PAY-OFF ON QUALITY AND VARIATION CONTROL IS AT THE LOOM

Jenny was saturated with figures by this time and glad to get a breather before the overseer pulled out his last chart.

"And do you mean," she said, "that all those figures and amounts are what we *save* when we keep NU—or variations—down?"

"That's right. When we keep our quality under control, we are preventing just such results as we have seen."

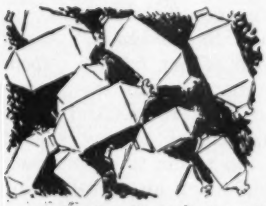
"Can every process cause variations like that?"

"Yes. Even you people on the spinning frames, if you don't perform your jobs carefully and keep up your machinery."

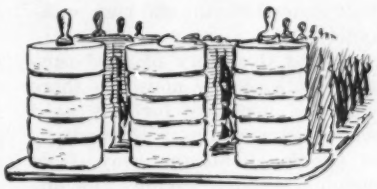
"Well, I certainly think a lot more of the people who work in the card room, because I didn't know just how serious a few cans of drawing sliver could be."

"Im proud of them, too. But now let's see the effects in later departments."

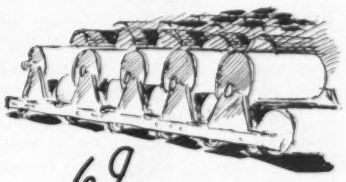
(The following condenses the explanation of the charts on this page.)



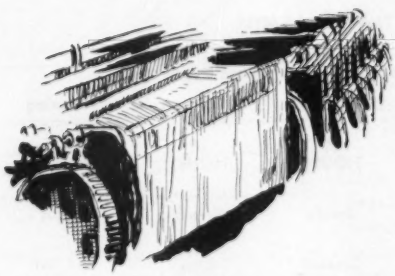
640 BOBBINS



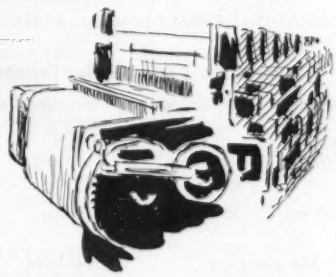
640 SPOOLER (plus) CHEESES



69 SECTION BEAMS



104 WARPS



104 LOOMS

or 19% OF THE LOOMS ON THIS STYLE

More than 640 bobbins of yarn will contain some of the defective stock, and traces of this stock will appear in more than 640 cheeses at the spooler. But we should realize that the stock will be broken up both in spinning and spooling, and the chances are that many more cheeses than the number mentioned will contain pieces of the defective yarn.

For this reason, it is impossible to calculate the number of warper section beams which would contain some part of the defective stock. Since it takes the spinning room about 69 hours to get this stock out of the room, we are assuming that it remains the same length of time in spooling and warping. Therefore some parts or pieces of the defective yarn will be entering every section beam run on the warper.

In 69 hours, our warpers run 69 section beams, with each of these beams being exposed to penetration by the widely scattered and broken up pieces of yarn.

But when the same widely scattered stock reaches the slasher, we see that we will have 104 warps which probably will have some part of the defective stock in them. For in this department, we would be turning out 104 loom beams during the 69 hours in which our production would be exposed to this stock from the warpers.

Similarly, we would have 104 warps on the looms which would contain some part of this defective stock. We should bear in mind, however, that the defective parts would probably be small bits of yarn, well scattered and blended with good yarn.

While this scattering of the defects tends to hide them, it doesn't do our fabric quality and loom production any good. For instance, with weak yarn present in 69 section beams, we can expect trouble with crossed, lost ends, and laps on these beams while they are being run on the slasher. And that is the reason why our employees have instructions to straighten up everything possible at the warper — before it gets to the slasher. For

if we have crossed ends and laps in the slasher creel, we can't spend much time getting them straight because the yarn is in contact with hot size and hot cylinders. If it stays too long in contact with this heat, we may get a lot of extra defects in the warp and fabric: hard size, brittle warp ends, and loss of elongation.

Elongation simply means the amount of "life" left in the warp yarn after it has been run under the normal stretch of the slasher. Too little elongation means that the yarn has had its liveliness and pliability stretched out. Without this quality, it won't weave well. Thus, we encounter the possibility of loss of production at the loom, ends-out in the warp, extra work by the weaver, and loss of breaking strength.

All these factors affect the quality of the cloth we sell. Without control of our variations, defects, non-uniformity, and related factors, we wouldn't have very much to sell our customers. And the better we make our quality, the more our customers can afford to pay for our products. The more products we will make and sell.

Back in the spinning room, Jenny's sides were humming. There were practically no ends coming down, and a much wiser Jenny patrolled her job with a keener appreciation of the ends that seemed to run and run, without a stop.

Behind this story of good-running work, Jenny now saw there was the necessity for the good work and carefulness of hundreds of people — all the way from opening through roving. The operators, the fixers, the second hands, the overseers, and the lab men, all trying to keep quality under control. Each end that didn't come down on her sides represented several good jobs that had been done way back in the card room.

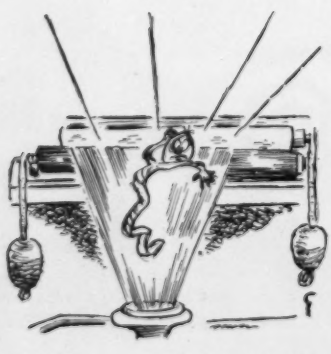
And as she looked at this last chart which the overseer had given her, she realized that she, too, was responsible for many warp ends that wouldn't break in the slasher creel or on the loom. Thus, the "worst possible" story that the overseer had shown her made her realize that she was an important link in the quality chain, too.

"It's just like a chain," Jenny said to one of her friends, "from the opening room to the weave room and cloth room. And when that chain comes by my set of sides, it's up to me to do my part — or I'm letting an awful lot of other folks down, in those later departments."

HOW VARIATIONS FROM DRAWING AFFECT THE WHOLE MILL

	How Long it Takes to Run Variable Stock Out of These Departments					
	Roving	**Spinning**	**Spooling**	**Warping**	**Slashing**	**Weaving**
If Defective Drawing Delivery Runs 8 hours of Uneven stock	39 HOURS	69 HOURS	69 HOURS	69 HOURS	69 HOURS	2-3 WEEKS
If Excessive, the Variation will Cause —	Ends down	Ends down	Breaks	Breaks	Breaks	Breaks
Secondary Defects That May Occur in Repairing Breaks	Bad piece-ups Slubs		Slip knots	Crossed ends Lost Ends	Laps Hard size Loss of elongation	End out Bad knot Thin place Dirty cloth
Main Effects on Process Quality	Bad work Lost prod.	Bad work Lost prod. Loss of breaking strength		Poor section beams	Poor quality in warps	Seconds Loss in breaking strength Poor weavability

5. TYPES OF DRAWING DEFECTS WHICH CAUSE SPINNING ENDS DOWN



Our mill appreciates good-running work and quality. We want our employees to know how they contribute to our story of good running work and quality. To illustrate how bad work can affect all departments and ruin our quality, we took a spinner through the mill and showed her the effects in spinning, spooling, warping, slashing, and weaving. We gave her figures which showed the tremendous cost to employees and to the mill of bad-running work.

To complete the story, the overseer of carding took Jenny to the card-room office and showed her the series of charts which the card-room uses in training programs. These charts show the type of mechanical defects which, if not corrected, cause unevenness in sliver and result in poor-running work and quality loss at later processes. (Our lab has shown that when drawing nonuniformity increases to a certain point, spinning ends down may increase as much as 15 ends down per thousand spindle hours.)

6. JENNY SEES MECHANICAL DEFECTS THAT CAUSE VARIATIONS

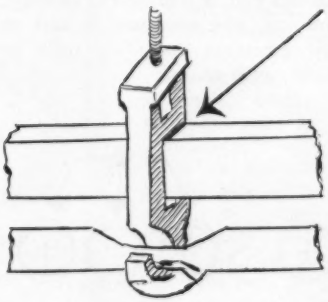
"We want to show you something," the overseer said. "We have mechanical defects like those shown on this page. We show these to employees so they can be on the lookout for them and catch them as well as other defects that might get through into roving and yarn."

"This looks like a weight," Jenny said.

"It is a weight, and you'll find that many of these mechanical defects will be found on the spinning frames, too."

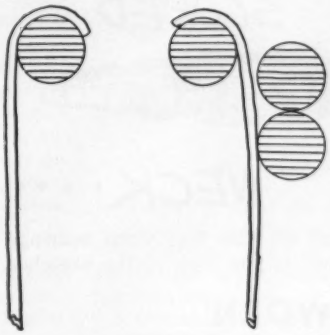
The overseer of carding then explained these mechanical defects to Jenny.

"Here is a weight defect that all of us are constantly watching for. This weight has a loose hanger which allows it to rest on that



release bar. Therefore, not all of the weight is exerting pressure on the rolls of the drawing frame. Thus, uneven drafting is taking place when the sliver goes through. This is a common source of what we call variation. And I might say that one of the best records for quality we have ever had is now being made by our card-room employees — since all of them, not just the fixers, but everyone has been trained to watch for defects such as we show here in these charts.

"Now, here we have a picture of what could happen to a weight hook. Through some misuse, the



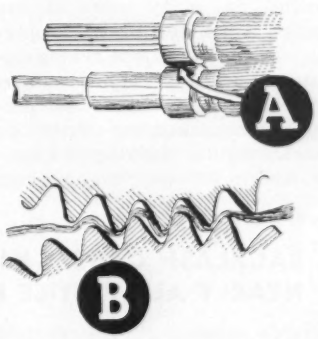
one on the right has become deformed. Notice the difference between the bad one on the right and the good one on the left. The bad one does not put constant pressure and weight on the drawing rolls. For this reason, a delivery with a weight hook like that would be making bad work.

"Now, here we have two drawings of a very serious mechanical condition — a source of extreme variation in drawing sliver which could be even worse than the one you had on your spinning frames, Jenny.

"These pictures show collars which have worn on the two drawing rolls and are marked 'A'. When these collars wear down, they allow the flutes of the steel rolls to mesh too deeply. The result is shown in 'B.' Notice that the flutes of these rolls — through which all our sliver goes — are meshing so deeply that they are rubbing together at one point. There is no room between them for the sliver. This condition causes badly uneven sliver, ends down in roving and spinning, breaks in slashing and weaving, and loss of the quality which we want to maintain in our fabrics.

"This extreme case shows us that the important points on textile machines are those which have contact with the fibers. In this case, it was the flutes of the rolls. If these flutes do not mesh as the machinery designer intended them to mesh, then we're not running our sliver as well as we ought to. From this picture, we can also see why we are so careful to instruct our employees to thoroughly clean up the drawing frame on schedule.

"If we don't clean properly, we are going to have an accumula-

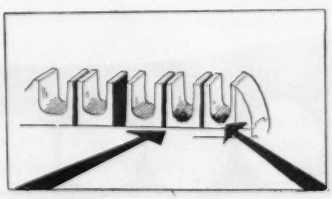


tion of dirt and 'gunk' in the flutes of our steel rolls. And dirty steel rolls do not make very good 'contact' points with which to process sliver."

7. OTHER MECHANICAL DEFECTS WHICH CAUSE VARIATION

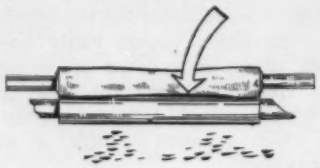
"Here we have several more of the common defects which we like to show our card-room employees," the overseer of carding said to Jenny, "because we want everyone to know how these little things affect our good-running work and quality.

"The first defect is a worn stand. You have stands in the spinning room, and the problem is the same. When a stand wears, and you continue to run it, you are making defective work and variations in the work, and you are also wearing the steel roll out. So, it is to our advantage to detect this type of defect and to correct it immediately. Otherwise, we not only cause ends down in roving, spinning, and breaks on the loom, but also wear out a very expensive piece of metal, the steel roll.



"Our next defect which we want to be sure all our employees are familiar with, is the bad top roll. This particular roll has a synthetic cover. We are very careful to rebuff these and replace them on schedule. However, unless we are extremely careful some of them may wear to the point where, instead of producing top-quality sliver, they may be producing va-

riations so fast that spinning and weaving suffer. For instance, this roll has worn so thin in the middle that it no longer cushions the sliver properly. If it doesn't cush-



ion against the sliver, then we have the same defect as when we don't control the weight on the top rolls. The result is bad drafting, thick and thin places, and variations in our quality.

"Now, we have three sketches of conditions which we inspect very closely when we scour steel rollers every few weeks. We also have a regular cleaning schedule for the drawing and roving operator. It they maintain cleaning schedules, they prevent the accumulations of lint, dirt, and other impurities on many parts of our frames. Thus, the drawing operator — as well as the roving operator, the spinner, and the weaver — is doing what we call preventive housekeeping when he does his regular cleaning *on schedule*. And in this way, they prevent lint and dirt from affecting the parts of the machines.

"Now, the other cleaning we give these draw frames is done every few weeks when we stop them off, take out the steel rolls, and clean them thoroughly. Sometimes we find that roll necks are worn, as shown in the drawing.

And we also find worn bearings. Now, if you look at the sketches,

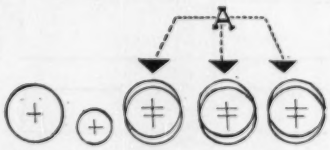
you see the defects which affect our quality.

"At right is a sketch of the rolls of a drawing frame. The bad rolls are marked 'A'. Now, there are the locations of worn bearings or scored necks. Notice the circles that these rolls make as they turn. They make lop-sided circles. We call that eccentric drafting. What it means is bad work, variations in sliver, and loss in quality.

"I mention cleaning," the overseer of carding said, "because if we do our cleaning properly, we will have less wear on parts. And related to cleaning, if we do our oiling properly and carefully, we will have less wear on parts — and good-running work."

"Gee," Jenny sighed. "I had no idea our mill did so much just for good-running work."

"That's not all," the overseer said, "I want to show you something else we do. And incidentally, it's something that all departments of the mill use, too. It's a chart on backlash. You'll see how it happens. And as the laboratory can tell you, it happens in carding, spinning, and weaving — and on any machine that has rolls or shafts, with gears."



8. BACKLASH CAUSES VARIATION AND UNEVENNESS AT NEARLY ALL TEXTILE PROCESSES

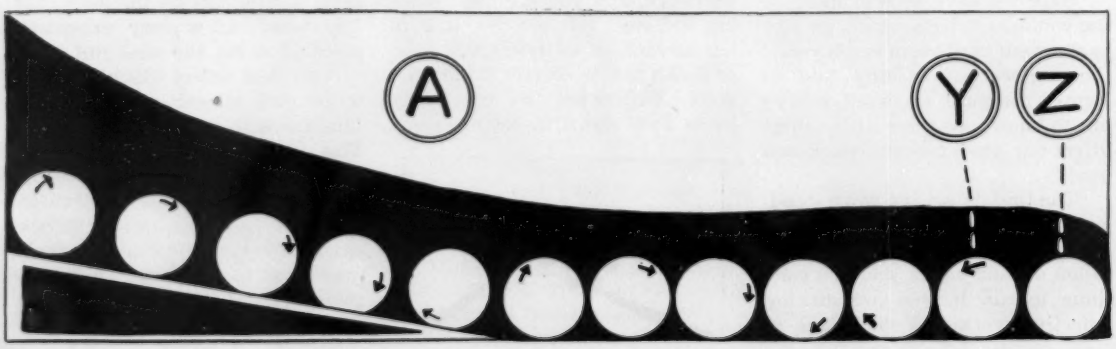
Here's what the overseer told Jenny about backlash.

"You see thin places in sliver and roving — or 'cut' drawing — and you wonder how these are made. Someone tells you it's backlash, and you want to know how backlash can occur.

"Well, textile rolls are like any other type of roll. Take your pencil. If you turn your pencil loose down a runway such as we have shown under 'A,' it will show you something about a textile roll.

"Notice that the pencil turns freely down hill, but slows as it reaches the level stretch. But before it stops completely, it begins to turn back or reverse itself at 'Y.' Try the experiment for yourself and notice how the pencil reverses itself.

"It may even 'rock' back and forth once or twice before it stops at 'Z.' What causes the 'rock?' Well, when the pencil reaches the level stretch, it has two forces act-



Film is Decorated— Not the Fabric

Many of the limitations of solution-coated fabrics have been bypassed in a method developed by Toscony Fabrics, Inc., Passaic, New Jersey. Named Filmtex, it consists of converting vinyl film, then laminating it, plus an overlay of clear vinyl film to a fabric base; although almost any base fabric can be used, standard cotton constructions have been most frequently employed to date.

Because the vinyl, rather than the cotton, is decorated, and because the face of the fabric is protected by the clear film, certain advantages, hitherto not possible, are said to have been realized.

The pattern does not wear off readily at abrasion points, color mark-off is eliminated, light stability of color in the range of 400-1500 hours is possible through the use of pigment inks rather than dyes; and the fabric is impervious to water, air, and vapor absorption, making it possible to clean the fabric with a damp cloth.

Filmtex was created by Toscony as the solution to a threefold problem:

1. The company's regular product, printed vinyl film for shower curtains, raincoats, etc., did not lend itself to heavy duty use where the greater tear strength of woven fabrics was required.

2. Many applications for cotton fabrics required the protective layer of vinyl film to facilitate cleaning and to resist degradation when exposed to the elements.

3. Conventional types of vinyl coated fabrics lacked the element of style required by many end uses. Generally, they are limited to plain, solid colors.

The Film — Both layers of vinyl film used are Bakelite's Krene. It can vary in thickness and stiffness.

Because of the nature of the film surface, methods can be used to print the film that result in sharper, brighter, and less expensive prints than the standard roller or screen printed methods known to the textile industry. It is a process similar to that used in printing paper, a gravure system with a four base-color potential. Color gradation is achieved simply by use of half-tone, quarter-tone, etc., engraving.

Embossing of the laminated cotton is also done to obtain a wide range of textured effects.

Work done to date has been on a cotton base fabric that has varied from lightweight sheeting to a #8 Army duck. Considerable work, particularly in the outdoor furniture covering field, calls for a 1.85 drill.

Open fabrics, such as osnaburg, have an added advantage when Filmtex is processed because yarn interstices are not filled with coating solution and, therefore, the fabric is self-supporting and stronger.

Toscony prefers to laminate to grey cloth because it is felt that most wet processing tends to weaken the base fabric, and thus the finished product.

Uses—Outdoor furniture covering is the biggest single use developed for Filmtex to date. Here is an instance where the degradation problem has been solved through complete sealing off of the cotton with the vinyl film. Price is competitive with similar products made from other fibers.

Another important use for Filmtex is the "do-it-yourself" wall covering. Other uses being developed are in luggage, indoor furniture, and automotive upholstery.

ing upon it. First, there is the power turning the pencil forward; then there is the force of gravity and friction which slows it down.

"When the pencil slows to a certain point, these two forces act on it and cause it to 'rock' once or twice before the forces are balanced and the pencil is brought to a stop.

"The same thing happens to a textile roll when the train of gears and studs which drive the roll are not acting together properly. When that happens, we call it backlash. The main causes of backlash are gear teeth set too deeply, causing a 'bind' which prevents them acting properly with other gears and studs; and 'lost' motion or dwell caused by worn gears, studs, or rolls.

"Head-end gearing and foot-end gearing of drawing, roving, and spinning frames will backlash. When they do, they cause imperfections in the product which ruin good-running work and quality. Pinions on loom drives and other loom gearing will backlash and cause mechanical defects at the loom. The backlash may be so small that you can't see it with the naked eye, but our uniformity analyzer will show the variations in the product."

The editors suggest that you may wish to post this story on the bulletin board in the processing departments, or reprint it in your employee publication.

Check this for adaptability to troublesome edge bobbins on wide filament looms

Automatic Let-Off for Narrow

Staff Prepared
EXCLUSIVE

IN NARROW fabrics weaving, two choices exist in providing warps for looms: several of the warps can be taken from one wide warp, or each warp can be prepared on a separate narrow beam. Where sensitive filament yarns are used, it is generally advisable to follow the latter course. This means that as many as 50 separate warps must be made on individual beams and properly tensioned to allow for even friction let-off.

The standard drop-weight let-offs commonly used for this purpose in the trade are complicated and require considerable attention by the weaver. To eliminate this problem, the Minnewawa Mfg. Co., Marlboro, N. H., has developed a simple but effective automatic device for warp let-off. This unit has been installed on most of the mill's looms, which are either of the Fletcher or foreign types, and all of which are tied up to Jacquard heads for label and fancy trimming weaving.

The Old Way. In the traditional drop-weight let-off, the warp passed upwards from the beam and over a roll mounted high in back of the loom. It was then led down between a pair of rolls, and the loop which formed was threaded around a pulley to which a weight was hung.

The warp continued its elevated path over another roll, and then down to pass under a final roll and into the loom.

Actually this was not a let-off at all, since the beam was immobilized by a looped cord. One end of the cord was fastened to the loom, the other to a notch on the beam. The weaving took up the warp hanging in the loop, and when this was woven up the weaver had to unhook the cord and remove enough warp from the beam to form another loop.

This method required attention at least once or twice a shift for each beam, and when the weaver forgot to let the weights down, they worked up to the top of the loom, wedged between the top rolls, and the warp usually broke out.

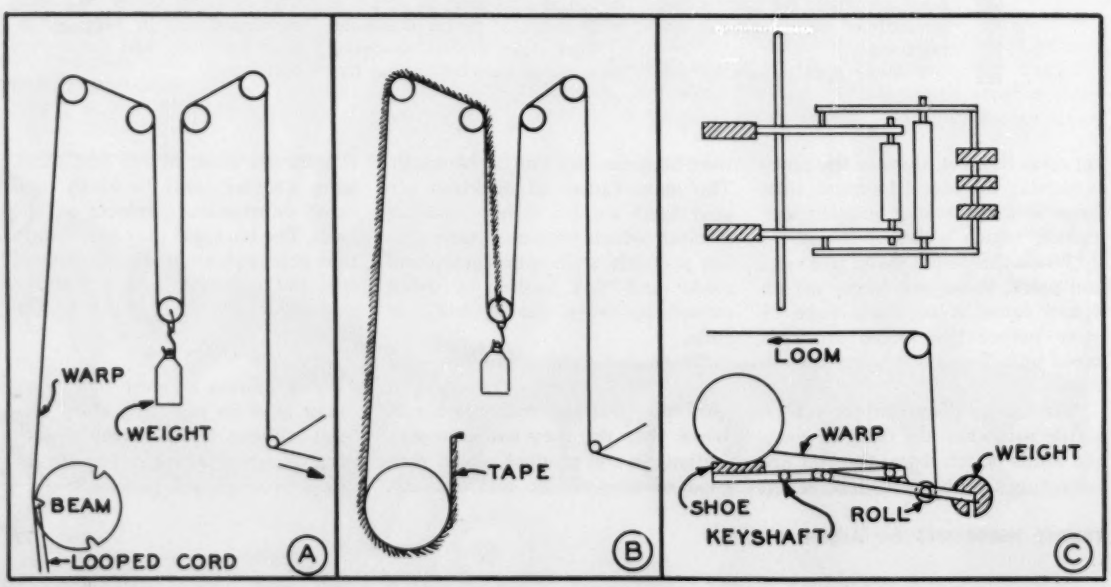
As somewhat of an improvement on this, a tape was included in the set-up just described, so that the looped cord was eliminated. The tape was attached to the pulley at one end and followed the warp down to the beam, passing around it and up to an attachment point on the loom at its other end. This provided some means for a non-manual let-off when the warp took-up: the weight raised up, releasing tension on the tape, and thus permitted the beam to turn.

This proved generally unsatisfactory, however, because frictional contact was made by the tape directly on the warp, causing bruising. Also, warp beams were difficult to replace, and if the tape broke, the weight fell to the floor.

The Automatic Let-Off. The Minnewawa development consists of a device which acts on the flanges of the beam from beneath. Each flange is contacted by a leather brake shoe. As the warp is taken up by the weaving, it breaks this contact intermittently through a series of fulcrumed arms and allows the beam to turn, letting off warp yarn.

The brake shoes are attached to two arms positioned so that one shoe comes in contact with each

THREE LET-OFF SYSTEMS. Diagram labeled A is traditional and requires much attention; the looped cord must be disengaged from the beam and warp let down about twice a shift by hand. B is a variation on A, is automatic but cumbersome and dangerous quality-wise because the tape contacts the warp directly. In C, and in accompanying photographs, the new development is shown.

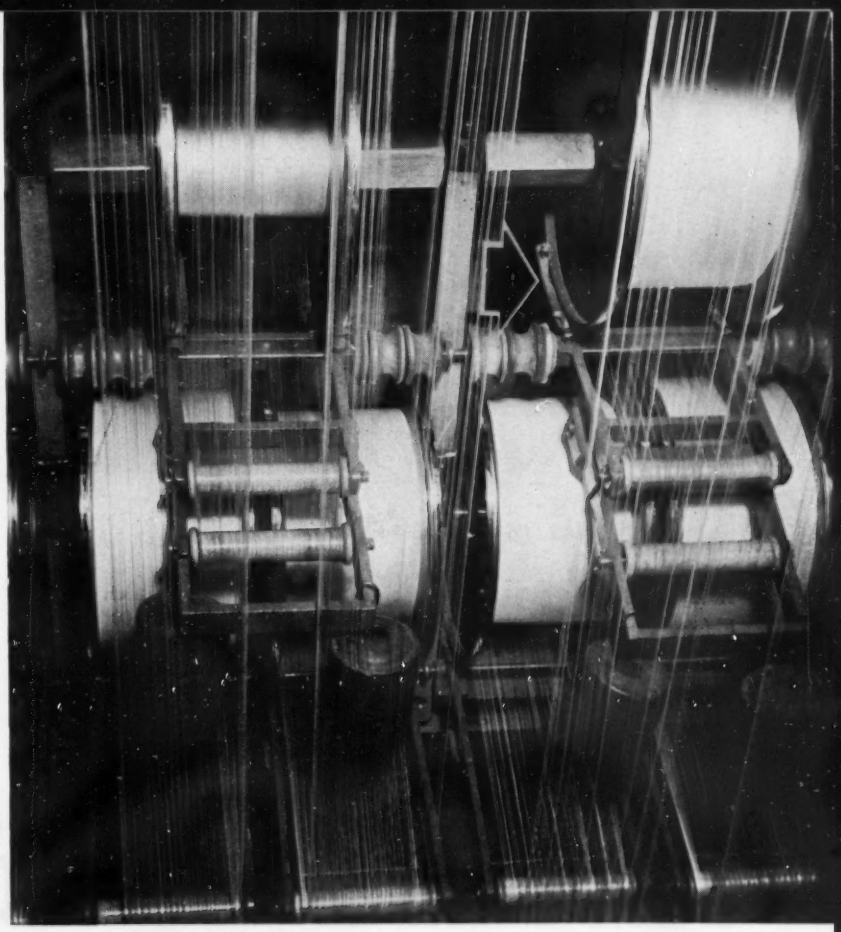


Looms

of the beam flanges; the arms are connected at the opposite end by a pin and roller. A key shaft, fastened to the loom, passes through both arms and acts as a pivot.

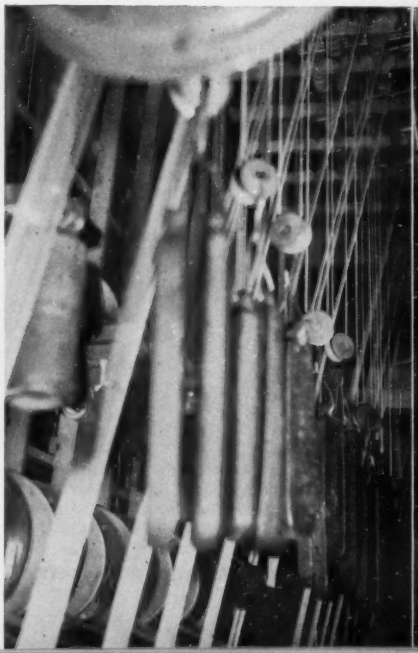
To the two arms are also fastened two other arms which are joined in two places: one by another pin and roller and two at their ends by a bar. Weights are hung over this bar and the warp is threaded back under this roller and over the roller in the first set of arms and to the beam (see accompanying illustrations).

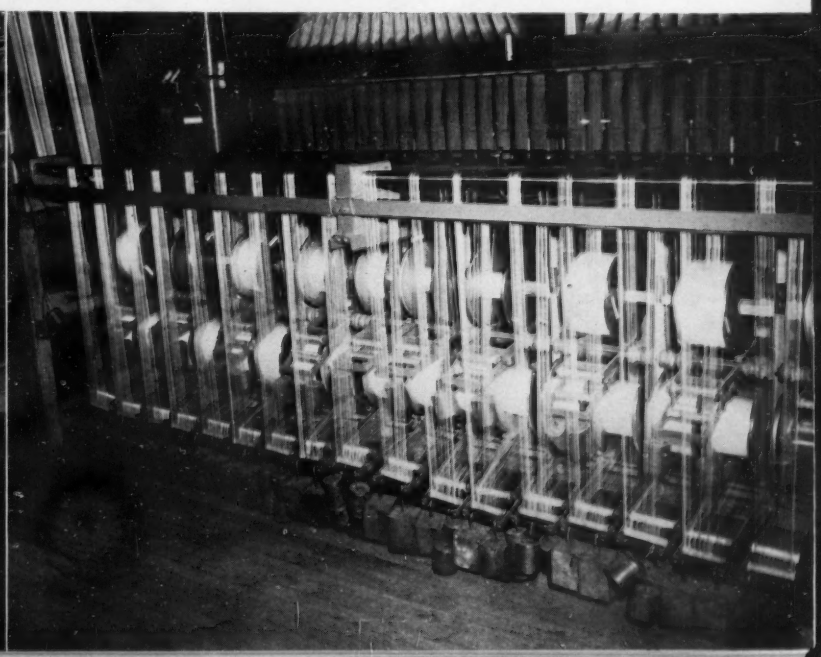
Through this arrangement the shoes are disconnected from the beam flanges with the corresponding let-off and take-up at each beat of the loom. The weights used are either of the slotted or hook wire hanger type, with the former being preferred by the mill. In 95% of the warps run, no adjustment is necessary in weights from warp to warp or from start to finish of the warp. Replacement of warps is simple and independent of the let-off device.



THE AUTOMATIC LET-OFF MOTION alternately brakes and opens the leather shoes (arrow) which act on beam flanges. This is accomplished at each beat of the loom when the pull of the warp, passing under and over the two rolls contained in the connecting arms, is translated into mechanical motion through the lever system.

THE OLD AND THE NEW let-off devices are quite different in mechanical detail and attention required: the old set-up (left) includes a pulley and weight device hung on a loop coming down from a point high in the loom; the new device (right) is compact and requires no attention.





One woolen mill increased card output 33%—most mills can

Increase Production

Staff Prepared

EXCLUSIVE

IMPROVING quality and increasing production with existing equipment is a problem of particular importance in woolen mills, where capital investment for new machines is large and sometimes prohibitive.

One of the common means to obtain improved quality at an accelerated production rate is to use a large diameter finisher doffer on woolen cards. These large diameter doffers range in size from 48″ to 54″ and in some instances to as much as 60″ in diameter.

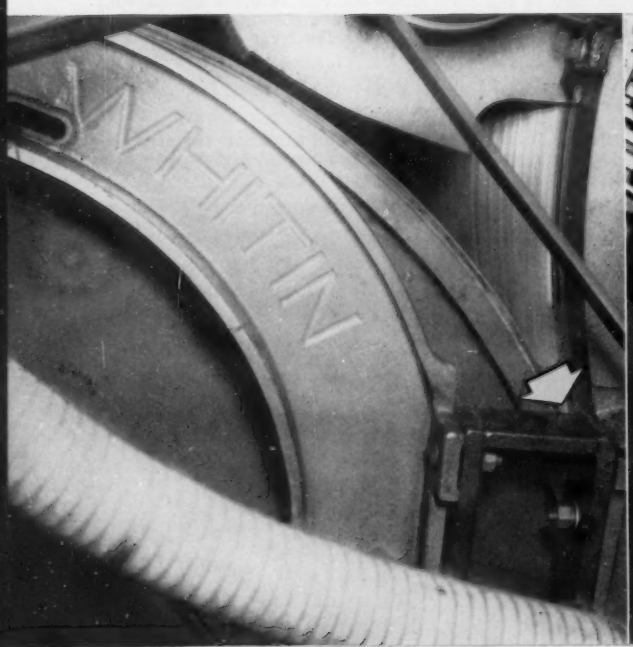
Large Doffers Produce Results. Independent tests by three companies indicate that with the oversize finisher doffer (changing 36″ doffers to 50″ doffers on 60 x 60 cards) alone, a 12% improvement in the quality of carding is obtained. This advantage can be translated into improved quality of roving, a 12% increase in production, or a combination.

Results reported in other mills include production increases of 7%, employing large finisher doffers on 1½ to 5-run work for men's suitings in one North Carolina mill; a high of 17½% increase in production on 54-inch doffers with stocks of from 2 to 5-run for ladies' dress suitings in another southern mill; and a 33⅓% increase in production on medium wools in a Canadian mill.

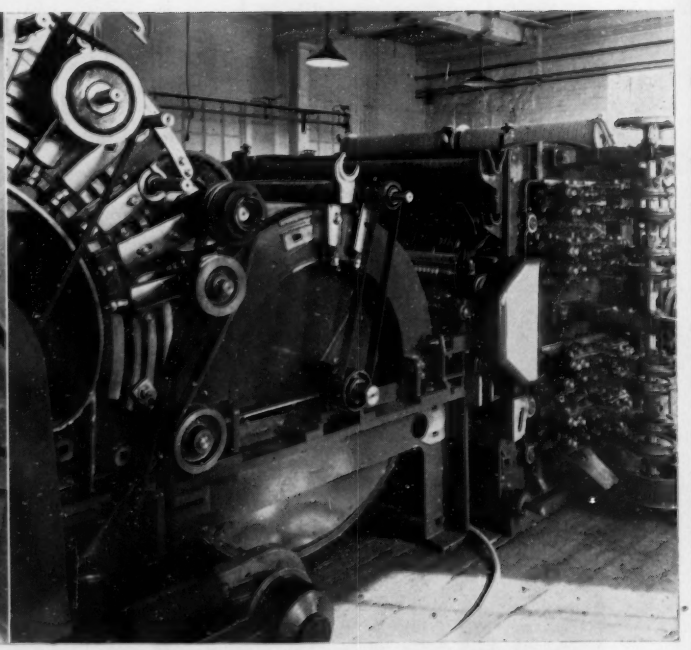
The 33⅓% increase in production on medium wools was obtained in a plant which changed from 36″ doffers to 60″ finisher doffers. This mill changed from one operator for each two spinning frames to one operator for more than three spinning frames (120-spindle D&F frames). The surface speed of the doffers was increased by one-third, with better quality made possible by larger arc of contact, according to a report from this mill.

Quality of web from finisher doffer to tape condenser shows definite quality improvement with more parallel arrangement of fibers in evidence; therefore, the web is easier to split, and better condensing produces more even roving, if speeds are maintained the same. One southern mill showed an improvement in roving uniformity on 3-run work of 17% upon doffer changeover to 54 inches. In this mill 36″ doffers were replaced.

Using 54-inch intermediate and finisher doffers, this mill obtained a 17% increase in production



GREATER ARC of carding surfaces between doffer and cylinder provides larger area for transfer of more fibers, thereby permitting more production.



Davis & Furber Machine Co.

LARGE DOFFER would be the equivalent of two workers and strippers usually eliminated in above-floor replacement installations. This 48″ doffer is mounted above floor level.

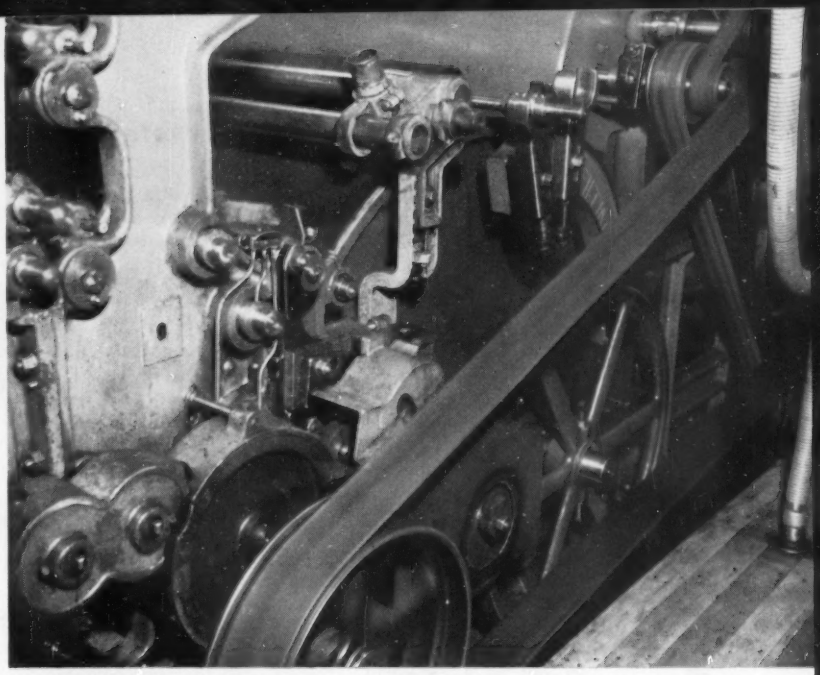
while maintaining the same level of quality and breaking strength.

In testing, a specific blend was maintained to help pinpoint results. The cards were run one full day at each of several different speeds, starting at 28 rpm the first day of the test. The second day another speed was used, and so on up to 40 rpm.

Breaking strength was tested three times each shift (nine times each day) to determine relation to production rate. In this way the 17% increase in production was found to be about optimum while maintaining quality and strength.

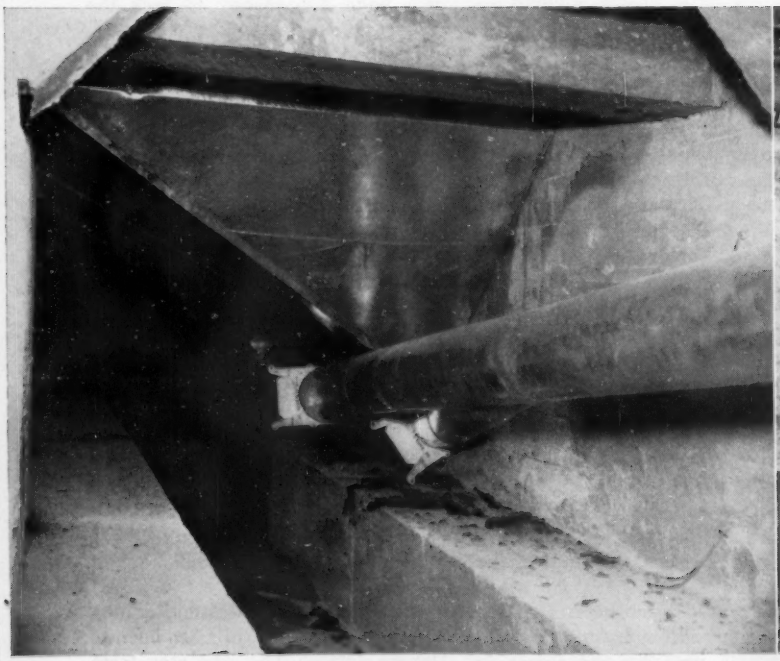
On 7-run work, a 15 to 18% increase in production was easily obtained without disturbing quality. At this mill, the investment in the large doffers will be amortized in approximately 14 months.

Pits Used. In one instance the

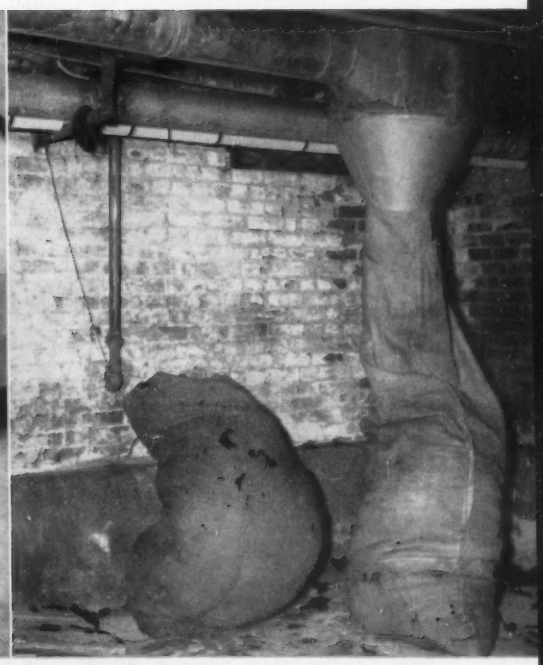


54" FINISHER DOFFER is recessed in floor to permit retention of worker and stripper usually eliminated in changeover.

with Large Doffers



METAL WASTE-COLLECTION BINS were installed under doffer recessed in floor. Waste is removed by vacuum.



WASTE FROM DOFFER collection bins is delivered by vacuum to this location, ready to be blended.

Dyeing Rayon Tufted Carpets

A rayon tufted carpet of good quality will weigh 4.0 to 5.0 pounds/square yard. A normal load on a dyebeck will be 75-150 yards long and 3-6 yards wide. The 12′ and 15′ carpets are very popular and, therefore, as a practical illustration consider a 12′ carpeting placed in a dye beck having an effective width of 14′ or 1440 lb, of which 900 lb is rayon (latex and backing weight excluded).

In this assumed dye beck there are approximately 9,200 pounds to 13,500 pounds of water. This gives an approximate range of volume ratios from 1-10 to 1-15.

The following different procedures of dye application are in use successfully.

(1) Wet out in a detergent and a water softener with or without added alkali such as tetra sodium pyrophosphate at 90 to 100 F. Add dye and raise to 200 F in 30-40 minutes and run 10 minutes at that temperature. Add common salt in three to four graduated adds with the first add approximately 0.75% on the weight of rayon pile. Run 10 minutes after each add. Run 10 extra minutes and then sample. Cool to 160 F by adding cold water before making any dye adds. Drop and rinse. Add finish or aftertreating materials, run twenty minutes and drop.

(2) Wet out in a detergent and a water softener with or without added alkali as in (1) except that a selected concentration of salt is also included. Add the dye slowly and run 5 minutes at 90 to 100 F. Raise the temperature to 200 F in 45 to 50 minutes. Run 30 minutes at this temperature and sample. Continue as (1).

(3) Bring the bath to 200 F and add the detergent, water softener, and tetra sodium pyrophosphate. Shut off the steam and wet out the goods. Add the dye slowly and run for 10 minutes. Bring temperature to 200 F and run 15 minutes. Add the salt as in (1) and continue as in (1).

Any one of these three methods will work provided care is used at the higher temperatures to add the salt gradually and to select dyes which fit these different routines. Our own recommendation is in the order of (3), (2), (1) as to procedures. It will be recognized that these different procedures are designed for:

(1) Salt sensitive dyes whose exhaustion can be controlled by graduated salt adds. Sufficient salt is present in the commercial dye to cause considerable exhaustion in the low volume ratio baths without the addition of any added salt.

(2) Those dyes which are temperature sensitive and are not helped particularly in diffusion by higher temperatures.

(3) Those dyes which exhaust fairly well without salt and which migrate freely at high temperatures.

Tips on Dyeing Tufted Rayon Carpets. Try to run carpet so that all parts of fabric have equal exposure to dye liquor of equal concentration and temperature. Savings in steam can be realized by operating becks closed. Open width is more satisfactory than the rope system. Paddles or rolls improve levelness of dyeing, but offer a serious problem in affecting the lay of the pile and the shape of the tuft.

Dye selection can sometimes minimize dye variation when different rayon dye indices exist. If discoloration is a problem, the backing material may be scoured previous to tufting for stock dyed carpets. Uneven and inefficient extraction can be a contributing fault to discoloration problems.

Abstract of an address by Jackson A. Woodruff of American Viscose Corporation before the Philadelphia Section of AATCC.

large doffers (both intermediate and finishers) were installed over pits in the floor instead of all above floor level. This permitted keeping the worker and stripper which would have been displaced by an above-floor installation. The pit which provides the recess for the doffers also serves as a waste collector. Accumulated waste is transferred by vacuum to a receptacle and then transported to the blending room where it is again blended with new stock.

In this mill, carding and spinning were bottlenecks, and part of the looms were supported by yarn from another mill. The doffer change satisfied the requirements with a margin of surplus.

Why Large Doffing Improves. According to carders reporting, an increase in the diameter of the finisher doffer increases the arc of web transfer from card cylinder to doffer, thereby presenting a much greater area of clothing more nearly in the same plane as well as many more points of wire to accomplish the transfer of fibers.

As the diameter of finisher doffer is increased from 36″ to 60″ there are more points of wire, and consequently the cylinder may be loaded with more fibers because the doffer has larger capacity to handle the extra load, the reporting carders agreed. The finisher doffer determines the number of pounds of stock taken off of the cylinder in relation to what is held by the cylinder.

Smaller diameter finisher doffers have a tendency to jerk the fibers during the transferring operation. The proximity of the larger surface in more nearly the same plane accomplishes transfer of the fibers more gently, thereby effecting an improvement in quality of work by minimizing the "tearing" effect of the transfer, which may produce irregularities or unevenness.

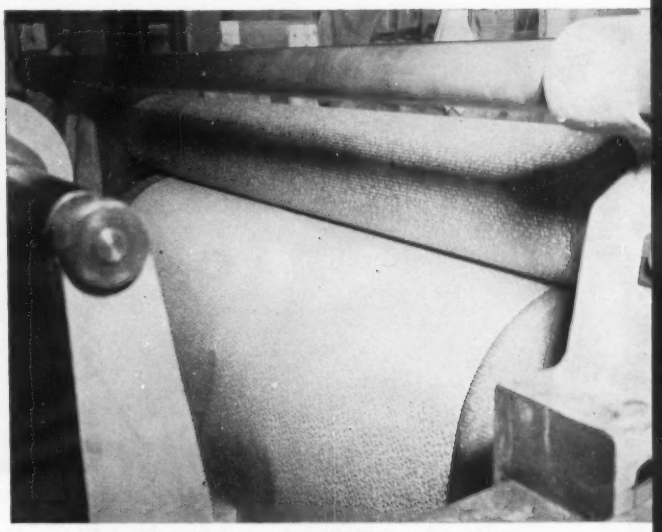
Initial Tests. In 1950, two sets of 72″ cards with 60″ diameter cylinders were built with 48″ diameter finisher doffers to evaluate the possible accomplishments of large doffers in one mill. Results after 30 days of operation indicated that the attendant improvement in both quality and production were sufficient to induce this mill to change eight other cards to large finisher doffers.

Since this test, the trend among many progressive mills has been to larger doffers. The next step from 48″ finisher doffers was to 54″; then to 60″.

Mill maintenance and manufacturing facilities for

Back-Up Embossing

Staff Prepared
EXCLUSIVE



THE DELIVERY OF THE EMBOSSER, in this case an acetate taffeta, is imprinted with a raised design formed by proper heat, pressure, and speed of rolls. Top rolls, the only part or service not provided by the maintenance department, are steel engraved; bottom rolls are paper.

EXCEPT for steel roll engraving, the machine shop facilities of the Wagner Embossing Co., New York City, are equipped to tool and fit all repair parts, construct paper embossing rolls, and build embossing machines. While these services are confined to the mill's own use, they have been an advantage in that time and money savings have been realized; the mill is not dependent on delivery and quality problems arising from outside supplier sources.

How Embossers Operate. There are two classes of embossers: cotton and synthetic. The former type uses, in addition to mechanical imprinting machinery, a range of resin applying equipment.

Synthetic embossers, of which the Wagner plant is one, imprint designs on cloths, mostly filament acetates, rayons, and nylons, by purely mechanical means.

Synthetic embossing as described here, although related, is different from the "pebble" type of embossing done before dyeing of rayon crepes in order to eliminate break marks. The differences are in speed, equipment, and procedures used.

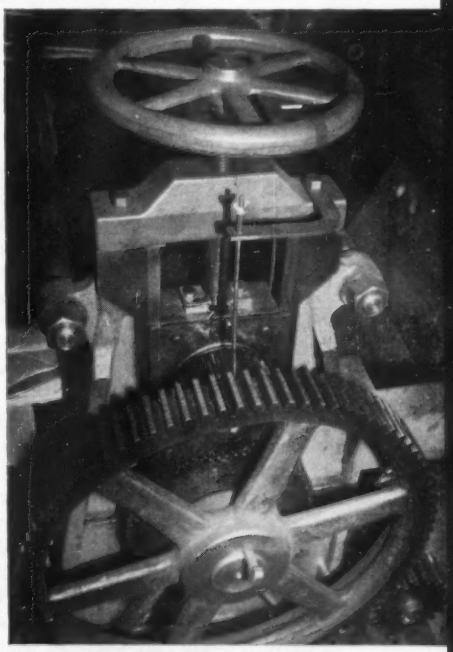
Embossing is done by a pair of rolls: a top roll made of steel and engraved with the desired pattern, and a bottom paper roll. If the imprint is to be raised, the bottom roll is "broken-in" to male-female synchronization with the top roll. If the pattern is to be "flat," the bottom roll remains smooth. In either event, the process depends on regulation of the heated top roll, the pressure on the fabric passing between top and bottom rolls, and the surface speed of the material being embossed.

Embossing machines must contain a suitable cloth roll feeding device; speed, temperature, and pressure controls; and a roll-up system for the embossed goods.

At Wagner, acetate, acetate-rayon, and nylon taffetas, sheers, and satins are embossed mainly for end use in the dress and bedspread industries. As such, embossing speeds are from 5 to 16 yards per minute; they are controlled by a variable speed drive geared to the top roller. When raised work is being done, the bottom roll is gear driven.

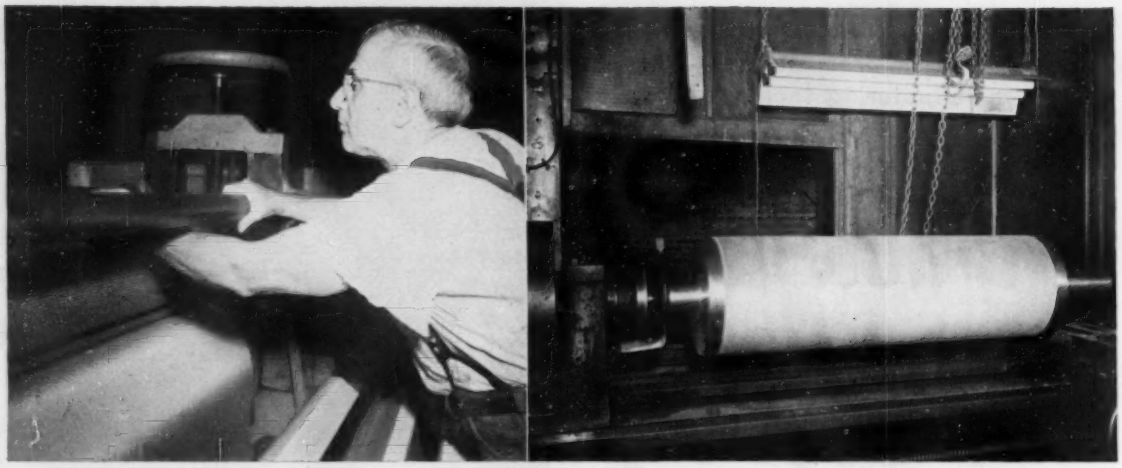
Gear ratios and roll circumference relationships are 2 to 1 because in that way the paper bottom roll lasts longer. In flat embossing, the bottom roll is driven by frictional contact with the top roll.

Temperature control is managed by manual regulation of a valve on the incoming gas line. Heating is accomplished by means of a ribbon burner placed inside the top roll.



MACHINE SIDE houses gear train that positively drives top and bottom rollers through gear on end of rolls. All gears are cut in the shop. Note screw pressure adjustment for rolls; pressures used vary from 8 to 16 tons. All of these parts were made and assembled in the maintenance department.

Temperatures range from 250 to 400 F. Wagner has a gas premixing unit which builds the gas-air mixture up to a more combustible de-



TOP ROLL TEMPERATURE is checked by operator with a pyrometer (left). Temperatures vary from 250 to 400 F and can be built up in the top roll in 15 minutes. Right: a finished paper (bottom) roll in one of the maintenance department's two lathes. The rolls take five to six weeks to produce and are precision-made. Body of the roll actually consists of 5000 to 6000 papers, which have been loaded onto steel core and pressed until the compact 45" width is reached. Corners are removed and then roll is turned down with a diamond tool.

gree. This allows a build-up to 400 F within 15 minutes. Guiding the manual temperature control is done by continuous checking of the top roll with a pyrometer, a temperature measuring device designed to be easily fitted to a roller.

Pressures can be applied either hydraulically or by screw-type control. The latter means, used at Wagner, consists of two screws, one at each side of the machine, which exert pressure on the top roll with manual adjustment up or down. Pressures vary from 8 to 16 tons, depending on the job to be done.

Put-up of all cloth fed to and delivered from the embossing machines is on paper tubes, one 80-yard piece to the tube. This is expedited in some plants by rolling several pieces on a wooden shell, although this mill feels that better quality results from the single piece method. Depending on type of pattern being run, there is, with raised patterns, a take-up of 2-5%; flat patterns yield 100% output return.

Maintenance. The maintenance department handles four main jobs: gear cutting, making the paper bottom rolls, breaking them in, and building new machines.

The equipment required to do this is housed in an area almost the size of that used for the embossing machinery. The main tools used are a gear cutter, a hydraulic press designed for the paper rollers, two lathes, a shaper, a milling machine, drill press, and a power hack saw.

Making a paper roller is a precision job requiring about five or six weeks to complete. First step is to mount paper squares which have been hole-punched to fit a core, onto a steel shaft. These squares are large enough to yield the desired roll diameter after the paper has been pressed and turned down. The papers are fitted onto the core in bunches which have been staggered by giving adjacent papers about a ¼ turn. This core is built out to its full width of 45 in., and is then placed vertically in the hydraulic press, which exerts pressure downward on the papers. This pressing is done at about 150 to 300 tons of load, and the first pressing reduces the width of the paper from the 45 in. to 12 in. Then follows a series of 12 to 16 similar loadings with paper, and pressing in the hydraulic unit until 5000 to 6000 papers have been fitted to the core and are compressed as tightly as possible. The width of the roll in this state is 45 in.

Next step in preparation of the bottom roll is turning down. The roll is mounted in the lathe and washers and locking rings are put on the roll ends. The preparation and installation of these locking ends is an exacting job. The corners of the papers are then taken off, followed by precision turning to the desired diameter with an industrial diamond.

The finished roll, after testing for quantity and uniformity of hardness with a Durometer, is now ready for use in flat embossing, or is ready for breaking-in if raised work is desired.

First step in breaking-in involves fitting both top and bottom rollers with gears. As noted, the bottom roll gear is twice that of the top one; these gears are prepared and fitted in the maintenance department.

At the outset of the break-in, both male and female roll gears are marked at one mesh point. This is the key to synchronization of the pattern; and unless the rolls, through positive gear control, are always in this marked position to one another, proper embossing is impossible. This marking is done after the paper and then the steel roll are placed in the embosser. The steel engraved top roll is then heated to within about 50° of the normal running temperature.

After wetting the paper roller down with water until it is saturated, pressure screws are adjusted to desired running pressure, and the embosser is started. Breaking-in is done without any goods in the machine. The empty machine is kept running, and through constant wetting of the paper roll

1957 Knitting Show Again Slated for Atlantic City

The Knitting Arts Exhibition will again be held in the Auditorium in Atlantic City, N. J., in 1957. This was the decision of the three sponsoring knitgoods associations following a month's study of the possibility of moving the show from its traditional setting in Atlantic City to the New York City Coliseum now under construction.

The National Association of Hosiery Manufacturers, the National Knitted Outerwear Association, and the Underwear Institute, whose executive heads constitute the KAE Policy and Management Committee, announced this conclusion recently.

"Although it is customary immediately after each show to conclude leasing arrangements for exhibition space for the next show," the joint statement declared, "this year the availability in 1957 of new exhibition space in New York City has caused us to defer the decision pending a consideration of the new possibilities. After study of the various factors involved, and after considering representative opinion among our members and the exhibitors, it is our unanimous decision, as it has been the virtually uniform opinion among all participating groups, that the Knitting Arts Exhibition continue for the present in Atlantic City.

"It should be pointed out in this connection," the statement continued, "that this year's KAE was the greatest ever staged according to the most significant standard of comparison, the actual volume of sales produced. Exhibitors—without a single exception, it is remarkable to report—declared themselves entirely gratified with the results. When such results can be produced in the Atlantic City setting, a strongly conservative inclination has been generally expressed not to alter the presently successful arrangements. . . . The KAE of 1955 proved that the presentation of technical improvements is not its sole basis. The fact that this year's show produced such excellent sales results demonstrates that KAE also serves to crystallize industry thinking about the purchasing of materials and equipment. It is a timing device for precipitating industry buying and is an aid both to buyer and seller in the planning of capital expenditures and seasonal commitments for materials and supplies."

The KAE in 1957 will be held April 29 through May 3.

Outlook for Wool Seen Steadily Improving

A steadily improving outlook for wool, apparent in many segments of the textile and clothing industries, was reported recently by The Wool Bureau.

The brightening sentiment is evident at diversified levels—in a rise in mill consumption of apparel wool, in an increase in new orders for civilian apparel fabrics, and in a sharp resurgence for wool fabrics in markets such as men's outerwear and boys' clothing, the Bureau noted.

Encouraging long-range signs for the industry were also seen in the results of recent retailer and consumer surveys conducted by The Wool Bureau and other organizations. These indicate, the Bureau said, not only improving demand for wool apparel but also a growing recognition at both retail and consumer levels of the time-tested and proven qualities of the wool fiber.

The Bureau cited a newly compiled graphic review of the U. S. wool situation prepared by its department of economics and statistics. The Review reveals that mill consumption of apparel wool for the first quarter of 1955 was at a rate of 13% above the first 1954 quarter.

New orders for civilian apparel fabrics also have risen sharply, the Review reports, and in the first quarter, 1955, were at a rate of 26% above the first quarter, 1954, level. The over-all rise reflects a 29% increase in men's wear business and a 26% increase in demand for women's wear fabrics, the Bureau explained. Preliminary figures for April, released by the National Association of Wool Manufacturers, indicate a further acceleration in demand during April, it was added.

Coincident with the increase in new orders, the Bureau noted the significance of a sharp rise in apparel wool imports during March. General imports of wools grading finer than 40s during March were 15.6 million pounds, clean basis—a total almost equal to the 18 million pounds imported during January and February. The quarterly import total of 33.6 million pounds represents a gain of 49% over the first quarter of 1954, the Bureau asserted.

Further indications of the improved wool outlook are seen in the marked increase in the output of woolen and worsted fabrics during the first quarter of 1955, the Bureau said. Total production, which was 73,510,000 linear yards, was 17% ahead of the first 1954 quarter, according to Bureau of Census statistics.

to soften it, and the pressure of the rotating engraved top roll on the bottom paper roll, a female impression of the design is pressed into the paper. The bottom roll is imprinted with twice the length of top roll impression.

Break-in is now complete and the maintenance department turns the job over to machine tenders, who complete speed, temperature, and pressure settings and start production.

While the details of the many repair jobs, and those parts and assemblies required to build a new embosser are too involved to be described herein, all of this work is handled by the maintenance department, with faster, cheaper, and better quality work resulting.

This Incentive System

All employees — not only machine operators, but service and supervisory

Staff Prepared

EXCLUSIVE

UNDER THE incentive plan in operation at Dolphin Jute Mills in Paterson, N. J., bonuses are paid not only to direct labor employees (machine operators) but to indirect labor (service) and supervisory personnel as well. An element of the company's industrial relations program, the plan provides for management a positive means of evaluating and controlling costs and production.

Dolphin is one of a handful of jute mills in existence. Established in 1851 under an agreement with the Society For Establishing Useful Manufacturers founded by Alexander Hamilton, the mill is one of the earliest yarn producers in the country and, it is believed, the first to process jute. Main products are jute carpet yarns, electrical cable filler, and wrapping twines.

The Standard Hour Plan. All incentives are based on those calculated for direct labor employees. Known as the Standard Hour Plan, its application was simple and required no additional personnel at Dolphin.

The plan depends on determining a calculated standard time requirement per unit of production. This represents normal production, set at a 100 per cent reference point, and is defined as the amount of good work produced by an average, trained operator working at an average rate of speed without incentive and with average skill and includes allowances for fatigue and personal and normal delays.

Development of a Standard. Calculating a standard calls for first establishing time values, fatigue allowances, machine time, and personal allowances.

Time values are arrived at by time study methods which break a job down into its component parts, establish a normal or average time requirement for each element, record the frequency of each component in relation to unit of production, and establish the normal time per element and total of all elements in the job per unit of production.

Typical of the procedure utilized for calculating a standard at Dolphin is the specific example of the open winding department presented in box on pages 88 and 89.

Figuring Direct Incentive Payments. From figures reported by the departments (which include time worked, yarn size, and pounds produced) Dolphin's payroll department is able to figure bonus payments as follows:

1. **Standard Rate (standard hours per 100 pounds) × Pounds Produced = Earned Hours On Standard**
2. **Earned Hours On Standard — Hours Worked = Bonus Hours**
3. **Bonus Hours × Hourly Money Rate = Bonus**

A sample of the incentive report on which bonus hours are calculated is shown at left below.

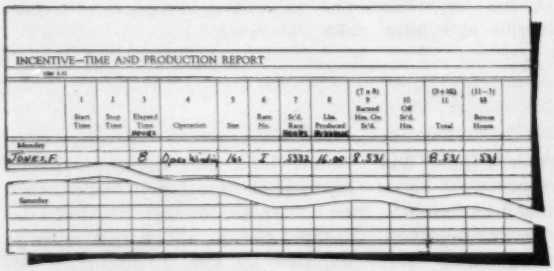
Incentives for Indirect Employees. Since it is impractical to measure the activity of indirect operatives, and since Dolphin has established that the cooperative effort resulting from an all-inclusive incentive system is beneficial, a plan was devised which established indirect incentives on the

1. $\dfrac{\text{Production} \times \text{Standard Rate (earned hours of direct labor)}}{\text{Hours Worked On Standard}}$ = **Efficiency of direct employees while on standard**

2. $\dfrac{\text{Hours Worked On Standard}}{\text{Hours Worked Off Standard}}$ = **Percentage of time direct employees spent on incentives**

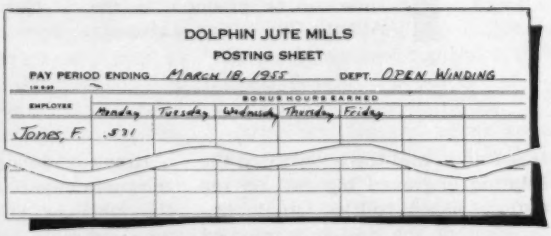
3. **Efficiency (from Formula 1) × Percentage (from Formula 2) × .6 = Percentage of increase over base rate of indirect employees that is paid them as a bonus**

Note: .6 is a figure which compensates for the relationship in importance between direct and indirect employees. In other words an indirect operative is considered to have 60 per cent the effective importance as direct employees.


INCENTIVE—TIME AND PRODUCTION REPORT

	1 Start Time	2 Stop Time	3 Elapsed Time (Hours)	4 Operation	5 Size	6 Rate No.	7 Std. Rate (Hours)	8 Lbs. Produced	(7 x 8) 9 Earned Hrs. On Std.	10 Off Std. Hrs.	(9+10) 11 Total	(11−) 12 Bonus Hours
Monday												
JONES, F.			8	Open Winding	16/1	1	5332	16.00	8.531		8.531	.531
Tuesday												

INCENTIVE REPORT on which bonus hours are calculated.

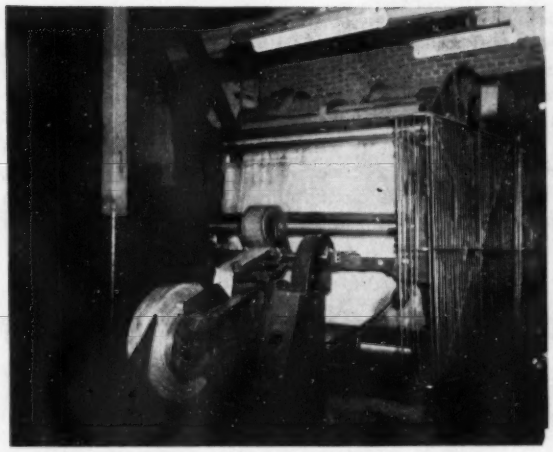

DOLPHIN JUTE MILLS

POSTING SHEET

PAY PERIOD ENDING MARCH 18, 1955 DEPT. OPEN WINDING

EMPLOYEE	BONUS HOURS EARNED				
	Monday	Tuesday	Wednesday	Thursday	Friday
Jones, F.	.531				

EARNED BONUS HOURS for each employee are recorded on this posting sheet which is displayed on departmental bulletin boards. This has added to the effectiveness of the program by instilling in the operatives a competitive spirit.

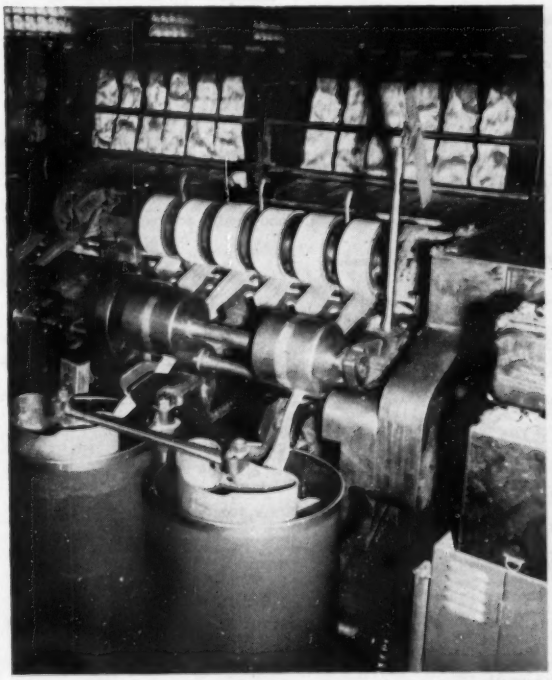


BREAKER CARD produces 800-1000 pounds of jute an hour. This high speed can cause clothing needle damage if laps build up too far on workers and strippers. Prompt attention to such breakdowns, more even feeding, and staying on the job have resulted from installation of incentives.

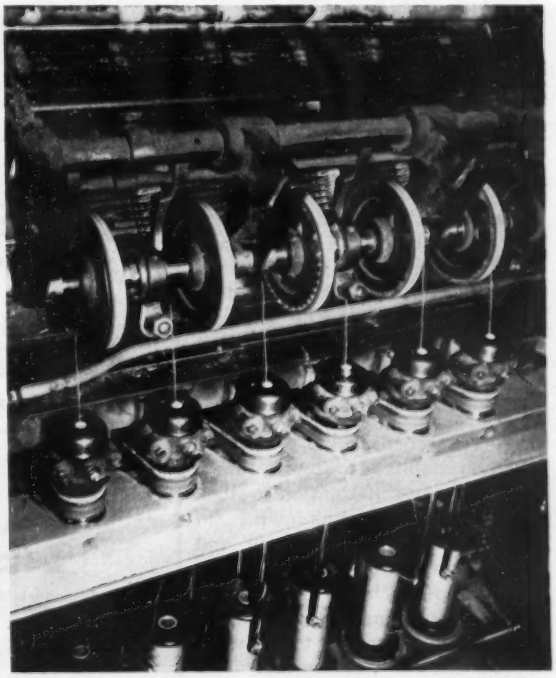
FIRST DRAWING was improved to contribute to a 9% production increase in the drawing department through incentive-inspired maintenance activity. Tenders have, since installation of incentives, gotten into the habit of following up repair work.

Built a Working Team

personnel as well — may earn bonuses under Dolphin Jute Mills' plan



SECOND DRAWING delivers sliver (rhymes with liver) to cans and is packed down by the machine. Tenders devised a down-time improvement by doffing while frames are running. Can packing was also increased through attentiveness.



GILL SPINNING efficiency increased about 26-27% when the incentive system was established. Two or three end fly-overs, tangled bobbins, roll laps, and choke back into pins were reduced by the operators' desire to do a better job.

activity of direct employees.

The basis of indirect employees' incentives is the efficiency of the direct operatives in the department or departments served by the indirect employees.

The calculation is a three-step procedure outlined on page 86.

Indirect incentives are calculated at Dolphin on the total effectiveness for the week of the direct employees that are selected as basic for any particular indirect incentive payment.

Foremen's Incentives. The basis for this plan is the formula for indirect incentives coupled with the ratio of direct to indirect incentive earnings; the group taken for calculation is that for which the foreman is directly responsible. Indirect employee man-hours are thus kept at a minimum through reduction of foremen's incentives with reduction in production time.

Effect of the Plan on Employees. The over-all effect of Dolphin's incentives is teamwork.

The bonus pay of all groups is inter-related: the direct operator must produce in order for an indirect employee to earn a bonus; the indirect operative must service the direct operative properly for the latter to produce; both must function efficiently for the foreman to earn a bonus, and his supervision must be right if direct and indirect operatives are to exceed base pay earning efforts.

Earned bonus hours are posted on bulletin boards in each department for each employee on a weekly basis. This has added to the effectiveness of the program by instilling a competitive spirit (see right hand illustration bottom of page 86).

Where direct operatives have been concerned, such previously common habits as absence from equipment and inattention to stock build-up type breakdowns, in which stock accumulates on and very often damages parts, have been stopped. This is particularly true in the carding department.

Increased attention to drawing department can packing and doffing while machines are running, along with tripling of maintenance, have increased production 9 per cent in this department.

Through bonus-inspired alertness, the fly-overs, tangles, laps, and chokes in the gill spinning department were reduced, resulting in an increase in efficiency of 26-27 per cent.

Direct employees in the winding department, by learning how to make minor repairs such as tension spring adjustments, slub catcher settings, and knock-off repairs, have themselves brought about a 30 per cent production increase by reducing down time.

In addition, direct employees in need of servicing or repairs seek out indirect personnel rather than allow a piece of equipment to

How Standard Was Developed for Open

The job was broken into ten elements, eight external manual and two internal manual. External elements are those performed during an interruption in production.

Table 1 shows the development of the total internal manual and external manual time required per 100 pounds of production.

TABLE 1
Calculation of Time Values for 10 x 10 Package Weighing 11.5 Pounds

ELEMENT NUMBER	ELEMENT	NORMAL TIME	FREQUENCY PER 100 LB	NORMAL TIME/100 LB INTERNAL	NORMAL TIME/100 LB EXTERNAL
1	Start Quill	.1216	1 x 100 / 11.5		1.0573
2	Tie-in and start quill	.1346	11.5 / 10 x 100		11.7034
3	Put up creel bobbin from truck	.0823	11.5 / 1 x 100		7.2832
4	Put up creel bobbin from machine	.1221	1.13 / 1 x 100 x .9		.0298
5	Doff and replace quill	.1407	.57 x 647 / 1 x100		1.2234
6	Clean Slub Catchers	.4275	11.5 / 1 x 100		.0661
7	Break on quill	.1868	647 / 33 x 100		.9528
8	Faulty quill	.5940	647 / 5 x 100		.4590
9	Put tags in quill	.0373	647 / 2 x 100	.6487	
10	Get quills ready	.0275	11.5 / 1 x 100	.2391	
			11.5		
	TOTAL INTERNAL ELEMENTS			.8878	
	TOTAL EXTERNAL ELEMENTS				22.7750

Element No. 1, Start Quill, had an estimated normal time requirement of .1216 minutes. A test showed that the quill had to be started once every 11.5 pounds, and so

$$\frac{1 \times 100}{11.5} = 8.695 \text{ quill starts per 100 pounds}$$

then

8.695 x .1216 = 1.0573 minutes per 100 pounds required to start quills.

In a similar way, the remaining elements were calculated.

The time values cited are based on one of Dolphin's standard package sizes, a 10 x 10 quill which weighs 11.5 pounds.

Putting this in terms of internal and external time requirements for any size (weight) package so that appropriate variables are considered:

$$\text{External Time per 100 pounds} = \frac{.1216 \times 100}{W} + \frac{.1346A \times 100}{W} + \frac{7.2832W}{W} + \frac{.0298W}{W} + \frac{.1407 \times 100}{W} + \frac{.0661W}{W} + \frac{.9528W}{W} + \frac{.4590W}{W}$$

$$= \frac{26.23 + 13.46A + 8.7909W}{W}$$

$$\text{Internal Time per 100 pounds} = \frac{.0746 \times 100}{W} + \frac{.0275 \times 100}{W} = \frac{.1021 \times 100}{W} = \frac{10.21}{W}$$

Where A = Number of creel bobbins per package
W = Weight of package

Personnel in the mill and the standards department then determine by observation and calculation the machine time in terms of production constants: surface speed of machine delivery and percentage of interference. The basis of determination is predicated on the fastest speeds possible to produce work of highest quality. Quality is a primary consideration.

For the example given:

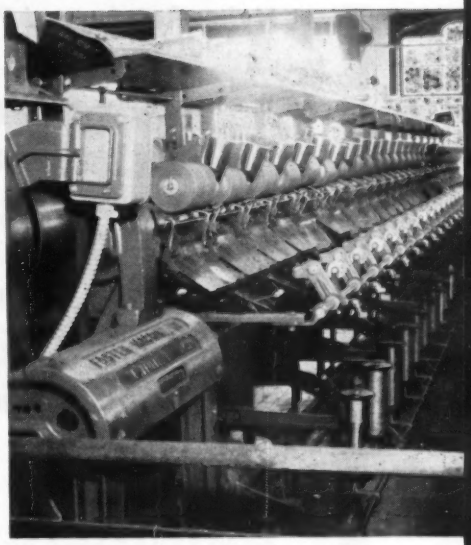
No. of spindles — 64
No. of spindles per side — 32
No. of spindles per allocation — 32
Weight of package — 11.5 (10 x 10)
Yards/minute — 120.573
RPM delivery roller — 358
Interference — 8.33%

While all calculations to this point consider normal time requirements to do

stand idle. Once the service is provided, they exert pressure for completion as quickly as possible. Indirect employees likewise exert pressure on direct employees to tend equipment as efficiently as possible.

The desire for personal gain, and the necessity to keep their employees satisfied, coupled with personal pride induce foremen to assume more responsibility and do a better job.

Use of Data by Management. As noted, incentive plans of this nature require the accumulation of data for each machine operation



WINDING yarn onto tubes is now a more efficient operation with increase in production of 30%. Tenders learned how to make minor repairs to reduce down time—for example, tension spring adjustments, slub catcher settings, and fixing the knock-off.

Winding Department at Dolphin Jute Mills

any job, and arbitrarily set normal at 100 per cent, Dolphin has established an expected production level of 120 per cent. This is based on anticipated advantages due to proper maintenance, job training, and work allocation. "Break even" as referred to indicates normal or 100 per cent; "Expected" means 120 per cent.

The calculation of the standard in terms of hours per 100 pounds involves development of a formula in which constants of time value, fatigue and personal allowances, and machine time are incorporated at expected efficiency.

In the case of the open winding department that formula was derived as follows:

A. $$\frac{\text{Normal External Manual Minutes + Fatigue}}{\text{Expected Efficiency}} = \frac{22.7750 + 1.1387^{*}}{1.20} = 19.9281$$

*5% Fatigue allowance.

B. $$\text{Spindle Minutes per 100 Pounds} = \frac{\dfrac{100 \times \text{Yards Per Spyndle}}{\text{Yarn Size}}}{\text{Yards Per Minute Delivered}} = \frac{\dfrac{100 \times 14{,}400}{\text{Yarn Size}}}{120.573}$$

Note: One *spyndle* is equal to 14,400 yards in the jute numbering system; yarn count is expressed as the number of pounds per spyndle (not to be confused with *spindle*).

C. $$\frac{\text{Normal Internal and External Manual Minutes + Fatigue}}{\text{Expected Efficiency}} = \frac{23.6628 + 1.1871^{*}}{1.20} = 20.7050$$

*5% Fatigue allowance.

D. Interference Allowance = 1.00 — .0833 = .9167

E. Personal Allowance = 1.00 — .021 = .979

Note: Fatigue and personal allowances are based on industrial standards.

F. Minutes per Hour = 60

Then, substituting these factors into the following letter formula:

$$1.20\left(A + B \times \frac{C}{A+B} \times \frac{1}{D \times E \times F}\right) = \frac{1.20\,C}{DEF} = .4614$$

This represents a constant for the theoretical standard where yarn size is not considered.

Then if

$$\frac{\text{Theoretical Spindle Allocation}}{\text{Actual Spindle Allocation with Actual Allocation} = 32} = \frac{\text{Actual Standard}}{\text{Theoretical Standard}}$$

$$\text{and Theoretical Allocation} = \frac{A+B}{C}$$

By substitution, the following is obtained:

$$\frac{19.9281 + \dfrac{100 \times 14{,}400}{\text{Yarn Size}}}{120.573} = \frac{\text{Actual Standard}}{.4614}$$

$$\frac{20.7050}{32}$$

When this equation is solved, formula for the actual standard is derived.

$$\text{Actual Standard} = .0134 + \frac{8.3167}{\text{Yarn Size}}$$

Standard hours required to produce a pound of each size yarn can then be figured for each yarn size being run. An example of this is presented in Table 2. Also figured are the Normal (Break Even) and Expected production predictions for an eight-hour day per operator.

TABLE 2

Calculations for Predicted Production for 10 x 10 Package

YARN SIZE	ACTUAL STANDARD HOURS PER 100 POUNDS		POUNDS PER 8 HOURS	
			Normal	Expected
16	$.0134 + \frac{8.3167}{16}$	.5332	1500	1800
15	$.0134 + \frac{8.3167}{15}$	.5678	1409	1691
14	$.0134 + \frac{8.3167}{14}$	.6075	1317	1580
12	$.0134 + \frac{8.3167}{12}$	.7065	1132	1358
10	$.0134 + \frac{8.3167}{10}$	.8451	935	1122

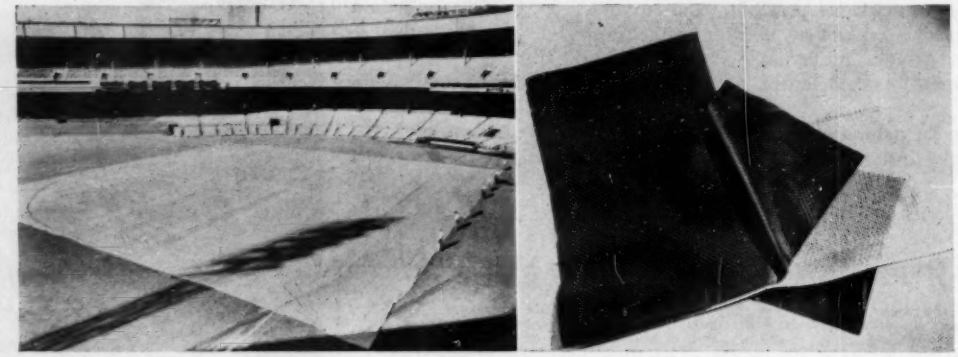
which shows normal production both in terms of time required per 100 pounds and normal or break even production plus expected production per operator for an eight-hour day calculated for all yarn counts and put-ups. This collection of information is used by Dolphin's superintendent in maintaining production and cost controls.

First, a graph is set-up for each department which contains two straight lines: one represents break even production; the other, expected production. Departmental production data are charted on the graph weekly—the curve should fall between the two lines; if it does not, particularly if it falls below break even, departmental supervisors are consulted and an effort is made to trace and remedy the causes.

These departmental production controls are combined into another that reflects an aggregate picture providing a master control used in administration and top echelon planning.

Costs, taken both on a departmental and over-all basis, are also charted. These are labor costs only and are used as a cross check on

Nylon Reinforced Plastic Tarpaulins Keep Ball Diamond Dry



How Nyvel is made is shown in the photo at the right.

New rain tarpaulins for the New York Polo Grounds baseball infield are made of Krene plastic which resists moisture, keeping base paths dry when the two 85 by 165-foot tarpaulins are spread over the infield before, or at the start of, rain.

Soaked by rain or by dew when the tarpaulins are laid out on a threatening night, Krene does not mold or mildew. It is tough and withstands the rough wear of grounds workers' shoes as they run over the tarpaulins while laying them out or taking them in.

Flexible and easy to handle, tarpaulins near the third base line can be spread over the entire infield in 3 minutes and 10 seconds by seven men, according to Matty Schwab, Jr., grounds keeper at the New York Giants' home park.

The tarpaulins weigh about 12 ounces per square yard, and they are produced by laminating two sheets of Krene together with a layer of nylon sandwiched between for added strength, then heat sealing the sheets together. Known as Nyvel, this new material was developed by Velveray Corporation, New York, N. Y., and is available in several weights for different applications.

57% of Apparel Made of Cotton in '54

Cotton has been steadily strengthening its position as the nation's foremost apparel fiber, the National Cotton Council said recently in a statement analyzing postwar fiber consumption trends.

In the percentage breakdown showing how cotton has fared in competition with other fibers over the past seven years, the Council said that cotton increased its share of the total apparel market from 51.5 per cent in 1947 to 56.9 per cent in 1954.

"Both men and women are now wearing more cotton than they did in 1947," explained Frank McCord, the Council's director of market research.

Mr. McCord said the long-term trend in fiber consumption showed cotton forging ahead in women's wear, registering a slight percentage gain in men's wear and a slight percentage loss in children's wear. Because of the increasing population, the consumption of cotton as measured in bales rose in all three apparel markets between 1947 and 1954, with a gain of more than 200,000 bales in the children's wear market alone.

As a result of better styling, versatile finishes and promotion, cotton has racked up its most spectacular gains in the highly competitive women's wear market. Cotton last year accounted for 34 per cent of all women's, misses' and junior's apparel manufactured in the United States, and this market consumed 818,000 bales of cotton. These figures represented a sharp gain over 1947, when cotton accounted for only 23 per cent of women's wear and 512,000 bales of cotton were consumed in this market.

The Council's statistical survey showed that cotton today accounts for about 57 per cent of all apparel, 65 per cent of all household textiles, and 37 per cent of all industrial textiles manufactured in the United States.

the effect of the incentive payments.

The Over-All Picture. To qualify the use of these incentives, Dolphin considers them as part of a three-point program: the incentives which determine the amount a normal employee should produce; second, job evaluation which brings the jobs into proper relationship with each other; and, finally, the wage curve which gives value to the classifications.

With this three-fold attack on its quality and production problems, Dolphin has achieved high levels in both areas, reducing costs on one hand and, on the other, developing a good working team.

More take-home pay, high morale, and an assurance that the company faces the future with a fundamentally sound team working together for the mutual good of all have been the results of the incentive installation.

Staff Report

STA members were advised to

"Face the future with confidence"

Annual convention at Blowing Rock

THE 46th annual convention of the Southern Textile Association was held at Mayview Manor Hotel, Blowing Rock, N. C., and James A. Chapman, Jr., vice-president of Inman Mills, Inman, S. C., was elected president of the association. Mr. Chapman succeeds J. L. James, Cooleemee, N. C., who was elected chairman of the board of governors.

Face The Future. Dr. L. H. Hance, president of the Institute of Textile Technology, Charlottesville, Va., told the group that despite strong competitive forces, the textile industry should "face the future with confidence." About 70% more textiles will be needed in 1975 than today at the present rate of population increase. Those who supply the textile market will do so after considerable planning and calculation, he said.

Cooperation Needed. W. F. Robertson, vice-president and general manager of Riegel Textile Corp., Ware Shoals, S. C., told listeners at the Friday business session that close cooperation between mill and finisher is the only way to overcome production problems to obtain the quality necessary to satisfy the customers. The effort of both mill man and finisher are equally responsible for the quality of the finished product.

Mr. Robertson pointed out that technically, there is a vast difference between finishing and manufacturing, but basically, the primary problem is the same—to satisfy the customers.

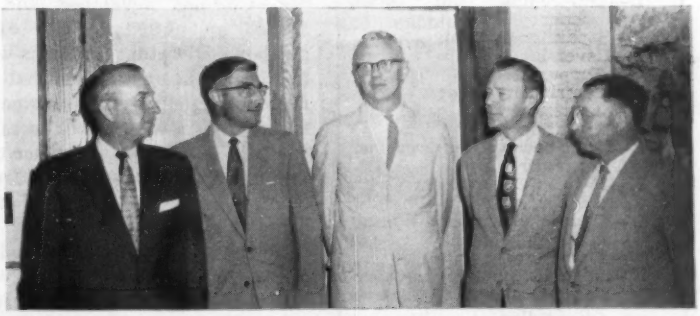
Better Human Relations. The adoption of better human relations in the textile industry is a must as well as good business, retiring S. T. A. president J. L. James told the Saturday morning business session. If there is one thing to which we can attribute our past failures in the realm of human problems, it is the fact that the emphasis has been on the slide rule and the equations rather than on conditions affecting human behavior, Mr. James said.

Concluding his remarks, Mr. James stated that job destruction by new machines and tools has been a persistent fear of man to the present day. The word "automation" has aroused new fear; however, automation is a new name for progress, and automation will bring new employment, perhaps different. We can look forward to an even more dynamic and prospering economy.

Following Mr. James' paper, A. K. Winget of Albemarle, N. C., president of the American Cotton Manufacturers Institute, commented on the recent tariff cuts granted Japan. Mr. Winget asserted that the machinery manufacturers should enter a combined effort with the textile manufacturers in this country to reconcile the tariff problem.

Elections. New members of the S. T. A. Board of Governors are: Joseph Chalmers, Greenwood (S. C.) Mills; C. J. Squires, Fieldcrest Mills, Leaksville, N. C.; R. M. McCrary, Carolinian Mills, Inc., High Shoals, N. C.; and L. W. Thompson, Riverdale Mills, Enoree, S. C.

OFFICERS OF SOUTHERN TEXTILE ASSOCIATION

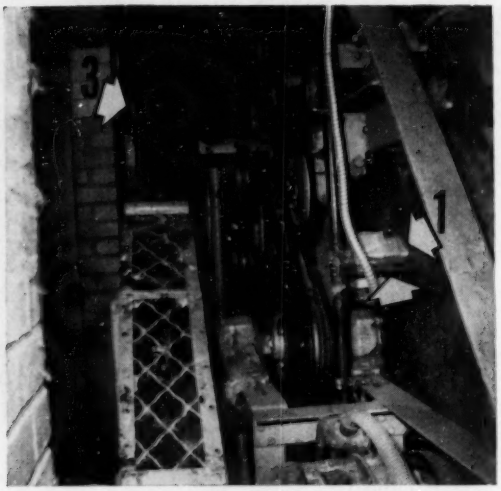


(Left to right) **H. C. Estes**, Pacific Mills, Rhodhiss, N. C., first vice-president; **W. M. Pittendreigh**, Riegel Textile Corp., Ware Shoals, S. C., second vice-president; **J. A. Chapman, Jr.**, Inman (S. C.) Mills, president; **T. I. Stafford**, Clifton (S. C.) Mfg. Co., retiring board chairman; **J. L. James**, Cooleemee, N. C., new chairman of the board.

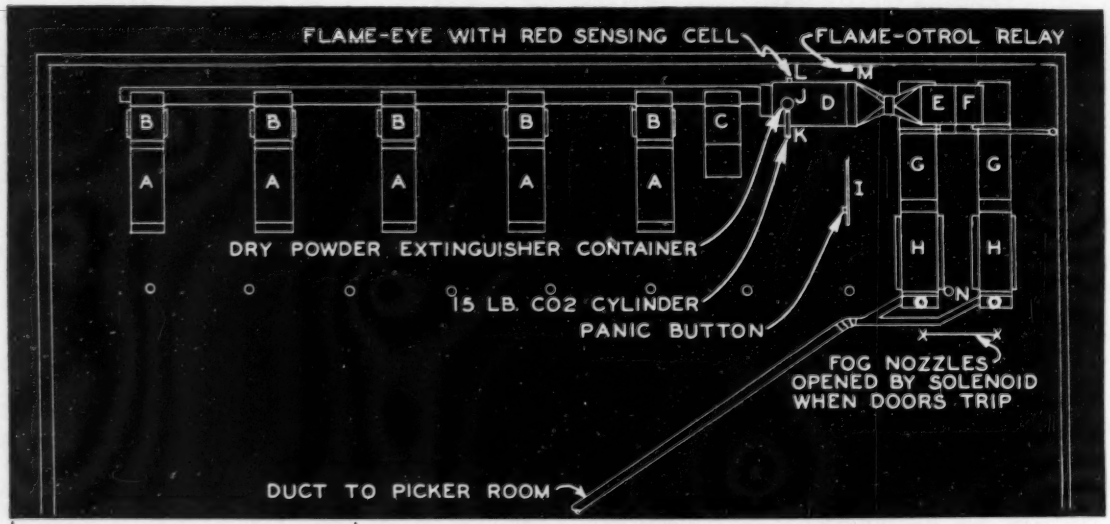
SYSTEM PUTS OUT OPENER ROOM FIRES AUTOMATICALLY

By H. C. Norman
Master Mechanic
West Boylston Manufacturing Co.

EXCLUSIVE



SIDE OF LINT COTTON OPENER, showing (1) Flame-Eye, (2) one-inch copper tubing from dry powder container, and (3) Flame-otrol.



OPENING LINE at West Boylston Manufacturing Co.:

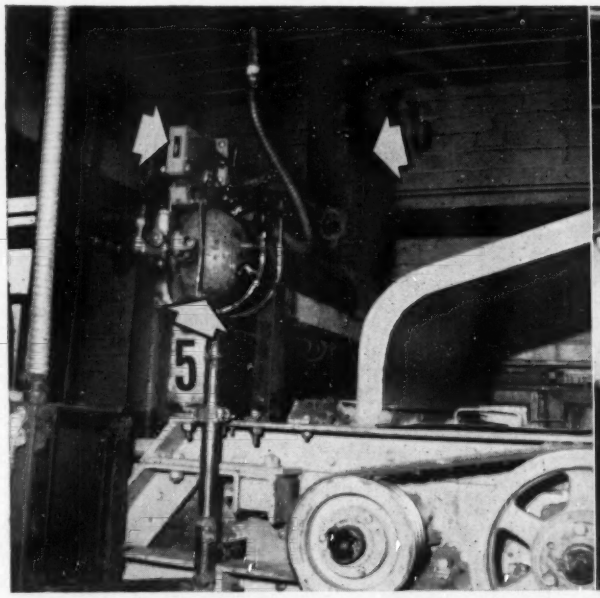
- A—Blending feeders
- B—Junior cleaners
- C—Waste feeder
- D—Cen-Tennial lint cotton opener
- E—Separator and fan
- F—Reversing apron
- G—Hopper feeders
- H—Centrif-Air cleaners
- I—Electrical control panel panic button
- J—Dry powder extinguisher container
- K—15-lb CO_2 cylinder with solenoid valve
- L—Flame-Eye with red-sensing cell
- M—Flame-otrol relays
- N—Solenoid for tripping open doors O at end of Centrif-Air cleaners
- O—Doors to dump stock on floor and close duct opening

WEST BOYLSTON Manufacturing Co. has developed and installed an automatic fire extinguisher system that functions when fire occurs in or has been fed into its opening line. The system is based on a novel use of the safety controls used to prevent accumulation of gas in gas-fired industrial boilers when the flame is accidentally put out.

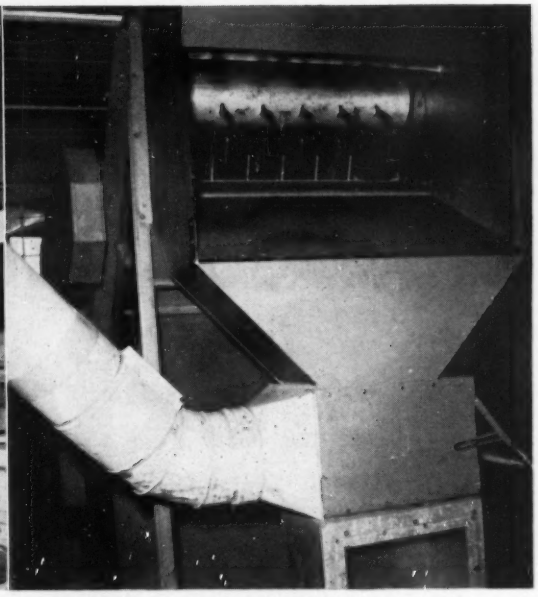
In normal use, a red-sensitive photoelectric cell or Flame-Eye is focused on the burner. In case of flame failure, the Flame-Eye actuates controls which shut off the fuel supply. At West Boylston, the Flame-Eye is focused on the cotton, and when it does sense a flame, it starts a series of actions which put out the fire and stop the machinery.

Equipment. The equipment consists of a Wheelco Type GLB Flame-Eye with red-sensing cell, a Wheelco Model 1390 Flame-otrol, a CO_2 fire extinguisher, dry extinguisher powder container, and the necessary relays and solenoids.

The Flame-Eye is mounted on one side of the Cen-Tennial lint cotton opener, over a 2-inch glass-covered hole flush with the inside



IN CASE OF FIRE IN OPENING LINE, solenoid (4) is energized and causes valve on CO_2 cylinder (6) to open, expelling 30 pounds of extinguisher powder from dry powder container (5) into hopper.



DUMP GATE at delivery end of Centrif-Air cleaner is automatically opened in case of fire, closing the uptake to the picker room and permitting the stock to be dumped on the floor, where it is sprayed by the sprinkler heads (see photo below).

of the hopper, approximately in the center of the vortex formed by the whirling cotton.

The Flame-Eye is connected to the Flame-otrol, which is mounted on the wall next to the machine so that it will not be affected by vibration. The Flame-otrol controls an auxiliary relay with normally closed and normally open contacts.

The dry powder container was made from 6-inch pipe, threaded at one end for a cap so that it can easily be filled. The opposite end was welded closed, with two 1-inch pipe sleeves through the 6-inch pipe at the bottom. The pipe sleeves are connected by 1-inch copper tubing and sweat-type flush fittings into three openings on each side of the opener hopper.

A ⅜-inch sleeve was welded in the side of the 6-inch pipe, 14 inches from the bottom; and a piece of ⅜-inch pipe bent 90 degrees was screwed, with the opening turned down, into the center of the 6-inch pipe.

The CO_2 cylinder is a 15-pound hand-type fire extinguisher, with the hand valve linked to a solenoid fastened to the side of the cylinder by U-bolts. The horn was removed from the extinguisher hose, and the hose connected to the ⅜-inch opening in the center of the 6-inch pipe.

The CO_2 cylinder and the dry powder container are mounted on an angleiron frame fastened to the top of the machine.

Operation. When the Flame-Eye detects a fire in the lint cotton opener, it causes the Flame-otrol, through the auxiliary relay, to energize solenoids which open the CO_2 valve and expel 30 pounds of dry extinguisher powder into the hopper. The relay also opens a solenoid valve to activate sprinkler spray heads.

The relay operates dump gates at the delivery end of the Centrif-Air cleaners which close the uptakes to the picker room and permit the stock to be dumped on the floor, where it is sprayed by the sprinkler heads. The relay also stops all the blending feeders, but keeps the conveyors and aprons running until all stock in the machine is run out on the floor under the spray heads.

The dump gates were made by cutting out the front box delivery section of the Centrif-Air cleaners, and hinging it to the bottom in such a manner that it will fall inward when it is unlatched, closing

the bottom and allowing the stock to fall out on the floor in front of the machine. The latch is connected to a shaft which is moved by a solenoid energized by the auxiliary relay.

A manually operated panic button mounted on the front of the control panel will energize all solenoids; it is for use if fire is discovered before it gets to the opener.

The Flame-Eye is adjustable for sensitivity, and is not affected by light other than from a fire. A match held in the hopper will cause the Flame-Eye to function.

Loom fixing tips and causes of

Weaving Defects

By Clyde O. Cronic

EXCLUSIVE

The author of this series has had years of experience in producing quality goods. Although his articles pertain primarily to cotton weaving, much of the information will be of value to weavers of other fibers. The series should be especially helpful to mills equipped with looms of models Modified D, XD, X2, E, and L.

Part 4*: Broken Picks, Mispicks, Thick and Thin Places

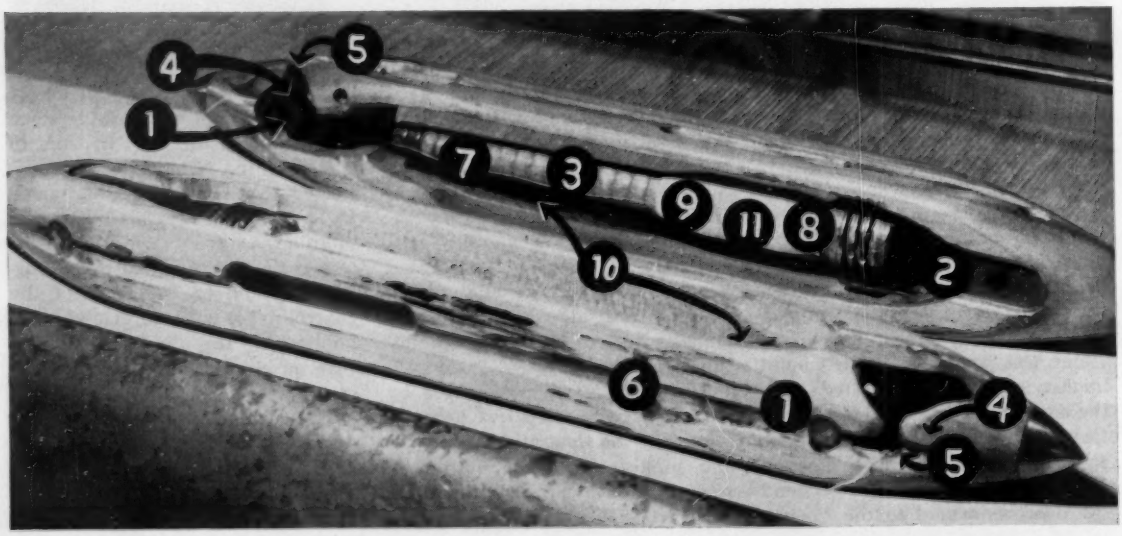
(Practically everything that will cause a mispick will also make a thick or thin place.)

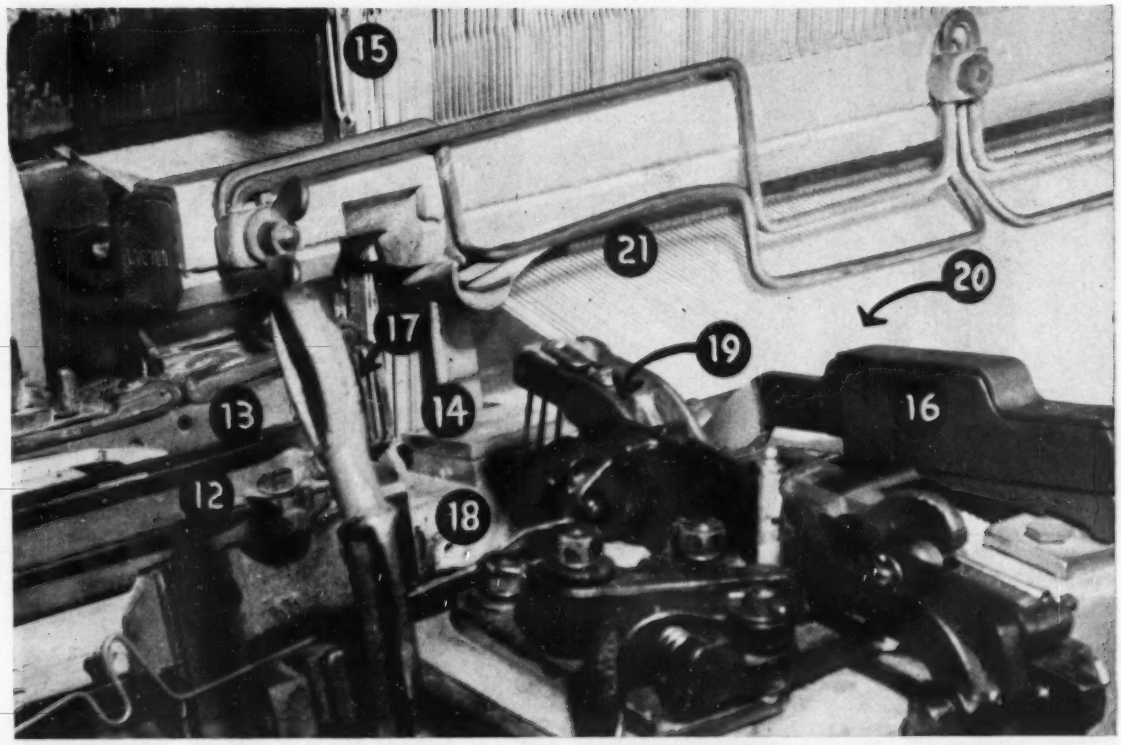
1. Worn or loose shuttle eye.
2. Crooked or loose shuttle spring.
3. Quill high, low, or off center.
4. Shuttle eye choked.
5. Shuttle eye too small for number run.
6. Poor shuttle grooves.
7. Bad quills.
8. Bunches too high or too low on quill.
9. Foreign matter in filling.
10. Incorrect tension in shuttle.
11. Too much filling on quill.
12. Bad box leather.
13. Shuttle box too tight or too loose.
14. Loom out of line.
15. Harness not timed and set.
16. Temples improperly set.
17. Filling fork going too far through grate.
18. Filling fork or grate bent.
19. Filling cam follower not timed.
20. Bad raceplate.
21. Worn reed.
22. Protruding picker screw (on side).
23. Too much power on loom
24. Heel spring too tight.
25. Worn rocker shaft.
26. Pickers not parallel.
27. Shuttle going too deep or too shallow in box.
28. Quill transferring too deeply, or improperly.
29. Filling feeler too deep, or limber neck.
30. Picking early or late.
31. Tangled yarn.

Not shown in photographs:

32. Worn bumpers.
33. Thread cutter not operating properly.
34. Eccentric stud loose.
35. Waste cushion out of front box.
36. Latch depressor not set.

*Parts 1, 2, and 3 appeared in the May June, and July issues, respectively.





Gouts and Slubs in Warp and Filling Yarn

Gouts and slubs are made in the spinning room, but are not always detected until they are in the cloth—where too many of them will reduce the quality of the fabric.

Essentially, the reduction of gouts and slubs is a training problem for the overseer of spinning. He must keep after the section men and spinners to see that the frames are kept clean, guides wiped out, piecing-up ends is done in proper manner, grooved rolls are replaced, doffers and sweepers do not fan brooms while cleaning or sweeping, frames are covered at blow-down time, and room is kept clean so that overhead blowers do not blow lint into yarn.

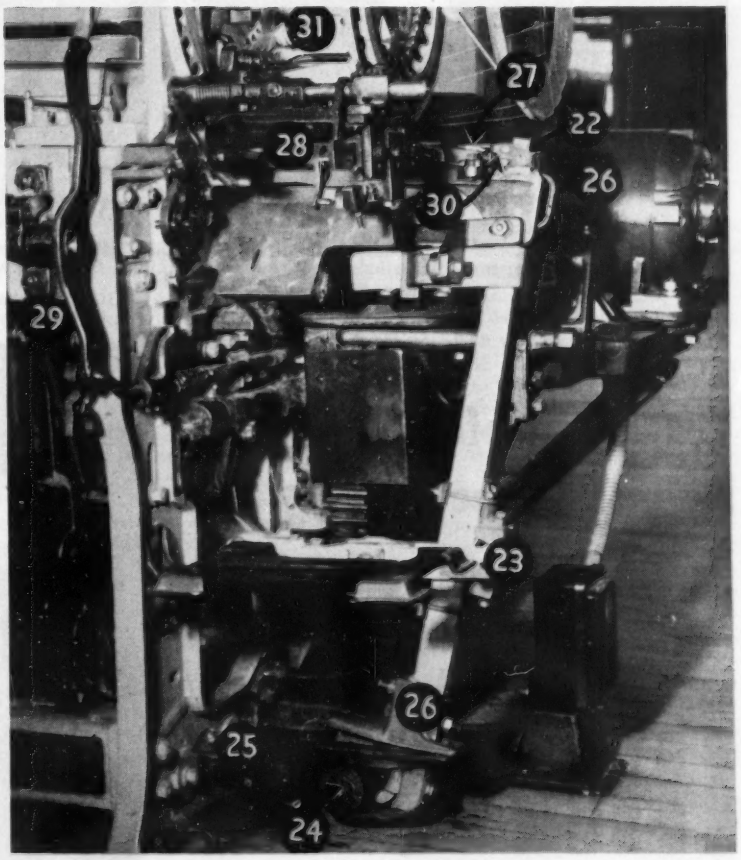
Sloughed-Off Filling (Ropy Filling)

Improper build on quill in spinning.

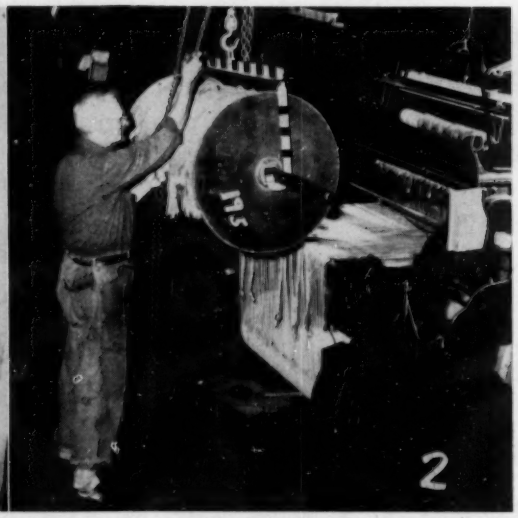
Conditioned filling left over weekend.

Too much power on the loom.

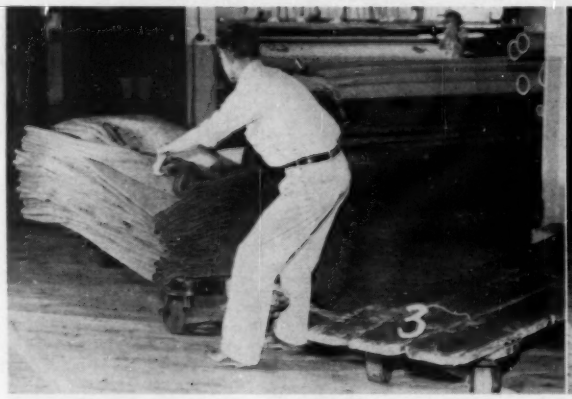
Shuttle bouncing.



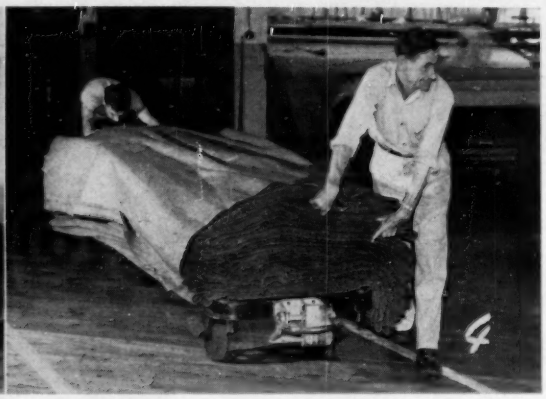
WRONG—The old method of lifting a beam could result in all kinds of injuries, wasted manpower, and weighed heavily on efficiency.



RIGHT—The single hand hoist method of lifting beams is safer, more efficient.



WRONG—The operator is not in control when pulling and may back into unseen obstructions.



RIGHT—The proper way to move a hand truck is to push the truck while an assistant guides it.

Photos courtesy C. H. Masland & Sons

RIGHT—A bad spot of oil is cleaned up in the mixing department, eliminating chances of a bad fall.

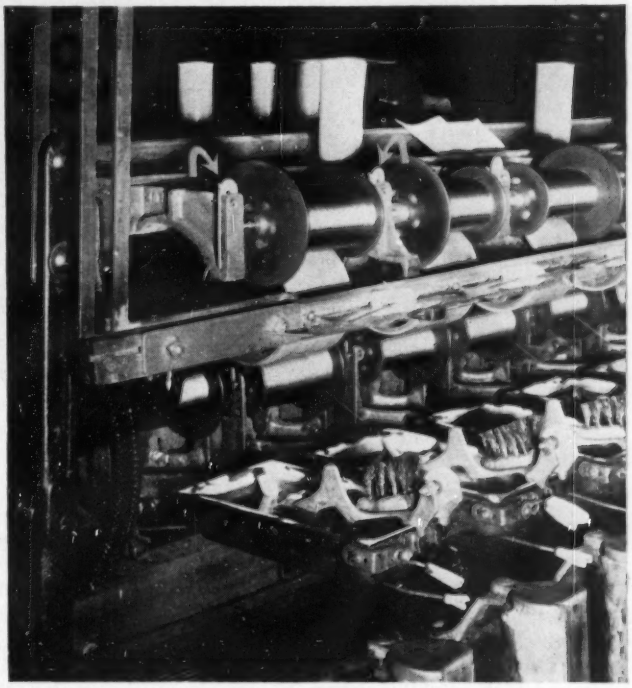
You may profit by these three

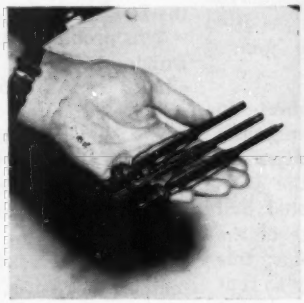
SAFETY HINTS

Spindle Abrasion Stopped

Rapid spindle wear was stopped at Bluebird Silk Mfg. Co., York, Pa., by insertion of a fiber strip between cast iron bearing surface and spindles on thread finishing equipment (arrow).

Shown below are 3 spindles: bottom one shows badly worn condition that was common before installation, middle spindle has been running 3 years against the fiber, and top one has never been used. Strips are held in place by cotter pins.





Describing Textiles Woven Abroad and Finished in the U. S. A.

From time to time, questions are raised with respect to the manner of advertising and labeling of textile fabrics *originating* in foreign countries. As a *general* rule, the Better Business Bureaus believe that geographical names should not be used unqualifiedly in the description of goods unless the goods named originated in the area designated. According to Federal Trade Commission rulings in specific cases, "English Broadcloth," for example, may be properly applied *only* to broadcloth made in England, and "Irish Lace" *only* to lace made in Ireland.

Since many textiles woven abroad are subject to further processing in this country, the question arises as to whether fabrics woven in foreign countries and finished here may be labeled, advertised, or sold unqualifiedly as "Imported Cottons," or as being, for example "Swiss Voile" or "French Illusion" or "Italian Silk," as the case may be.

Goods imported into the U. S. A. are required under customs laws to be marked with the country of origin and the removal of such markings is prohibited, with certain exceptions.

Under a Custom's Regulation ruling, fabric which is bleached, printed, or dyed undergoes a "substantial transformation." Fabric so processed should not be described unqualifiedly as originating in the country where the weaving *alone* took place.

Other clues as to the proper designation of fabrics woven in foreign countries and finished in the U. S. A. are to be found in the rules and proceedings of the Federal Trade Commission, which are available upon request.

The Federal Trade Commission has held in general that reference to a particular foreign country as the place of origin of any kind of product is improper, where there has been a blending or mixture with products having a different origin, or where they have been processed in the United States, unless there is disclosure of all the facts.

FTC Trade Practice Rules for the Cotton Converting Industry, promulgated May 17, 1949, make it an unfair trade practice to refer to fabrics which have been (1) woven or fabricated in a foreign country and imported in the grey or other unfinished state and dyed or finished in the United States or (2) imported in the finished state and dyed, redyed or refinished in the United States, in such a way as to create the belief that they were not so dyed, finished, re-dyed or refinished in the United States, as the case may be.

In summary, it is improper to designate unqualifiedly as being of foreign manufacture, imported fabrics which have been bleached, dyed, printed, or otherwise refinished or redyed in the United States. It is equally improper to *fail to disclose* that goods dyed, finished, redyed or refinished in the United States were woven in foreign countries whenever the failure to reveal such foreign origin would have the capacity and tendency to mislead the public into the belief that the goods, in their entirety, were a product of the United States.

ICE for

By W. Riley Jones
Superintendent of Dyeing
Dundee Mills, Inc.

EXCLUSIVE

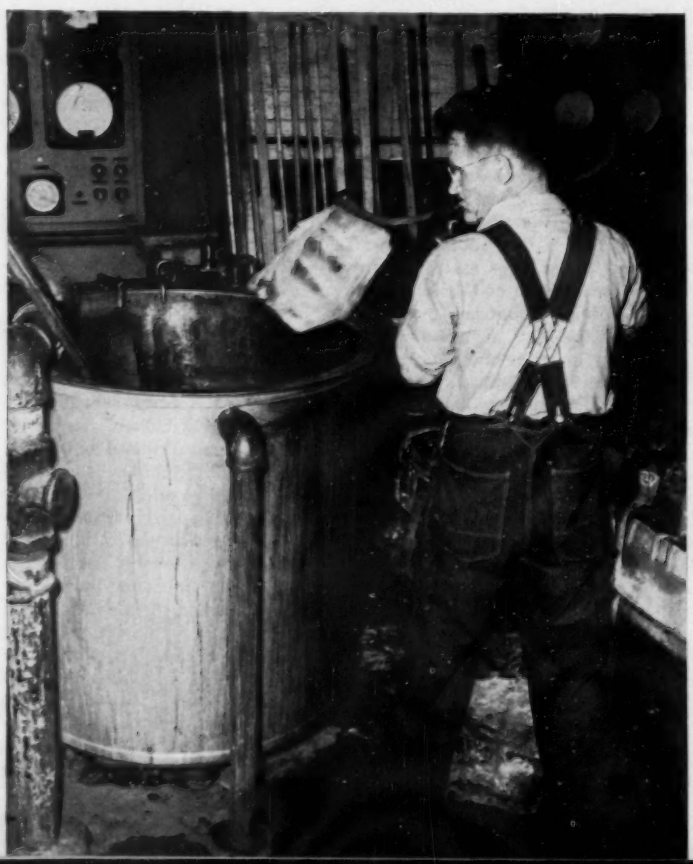
VAT PINK FF (Prototype No. 109) is typical of a class of vat dyes which are characterized by low affinity on the *grey cotton fiber* and high solubility when in the leuco or reduced state. In package dyeing by the pigment method, one of the difficulties encountered is in rinsing the yarn after reduction is completed and prior to oxidizing. Because of the high solubility of the color, this may not proceed uniformly so that uneven dyeing results. (Mercerized yarns are excluded because of their high affinity for dyestuffs.)

This is especially true during the summer months, when the temperature of the dyehouse water supply is comparatively high, since the leuco dye is more soluble in warm water. The problem is even more accentuated in most parts of the South.

This problem has been solved at Dundee Mills, Inc., Griffin, Ga., by adding ice to the bath after reduction is completed and before rinsing is started. This keeps the rinsing temperature low enough to prevent excessive or uneven washoff, which causes unlevel dyeing.

At Dundee, the use of ice has been found necessary when the air temperature goes above 90 F, which it does almost every day during the summer.

ICE is put into expansion tank after reducing vat dyes; before oxidizing and before developing direct and developed dyes.



Dyeing Procedure. The following procedure is used for dyeing Vat Pink FF at Dundee Mills:

Material: 690 lbs of 16s H.T. yarn on 600 packages, 300 packages per machine. Average flow 2 gal per lb per minute. Yarn boiled off and rinsed. Bath set at 175 F with:
- 6 lbs low-titer soap
- 4 lbs sequestering agent (Nullapon)
- 25 lbs stabilizer (Hydrolux)
- 9 lbs animal glue

Prepare in 50 gal water at 150 F:
- 13.5% (owf) Indanthrene Brilliant Vat Pink RAM Suprafix (Pr. 109)
- 0.15% (owf) Indanthrene Red Violet RRNWP (Pr. 503)

Let stand for 30 min.

Reduce water level in expansion tank to 5 in., add all color.

Circulate outside for 30 min., with overflow valve about 2/3 closed.

Add in two parts:
- 70 lbs caustic soda
- 60 lbs sodium hydrosulfite

Open valve a little.
Add ½, circulate 5 minutes outside.
Add ½, circulate 40 minutes.

NOTE: Be sure that dye is completely reduced; leuco dye should be bright yellow.

Add 900 lbs ice to expansion tank.

Open drain valve, start cold wash. Flow 3 minutes outside, then inside

A warm dyehouse water supply can cause uneven dyeing with vats and direct developed colors. Try this remedy

uniform package dyeing

until free of all caustic.
Oxidize with 1% Albone C for 20 minutes at 130 F.
Soap for 20 minutes at 190 F.
6 lbs soap
4 lbs TSPP
If finished goods are to be bleached, repeat soaping.

Light shades are dyed in the same way, with reduced amounts of chemicals and for a shorter time.

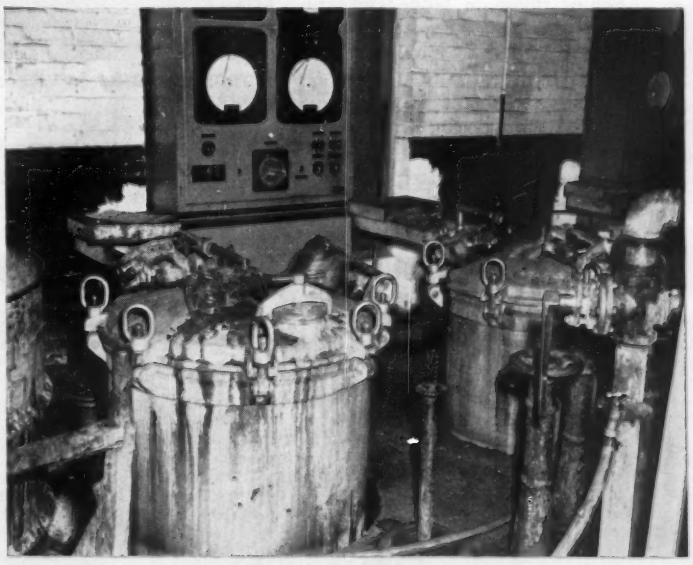
Dyeing Beams With Pink FF. We have developed a similar method for dyeing beams with Vat Pink FF; it is designed to keep the beam from blowing, as well as to cope with a warm dyehouse water supply.

Material: 250 lbs of 16s H. T. yarn on beam. Boil off and rinse. Set bath at 175 F with:
6 lbs low-titer soap
4 lbs sequestering agent (Nullapon)
12 lbs retarding agent (Retardex)
Dyestuff: 3.4% (owf) Indanthrene Brilliant Pink RAM Suprafix (Pr. 109)
Add 2/3 of color pigment all at once, with water level very low and circulation from outside. Run 15 minutes outside.
Add all at once at 175 F with throttle valve wide open:
60 lbs caustic soda
50 lbs sodium hydrosulfite
Run 20 minutes outside.
Plug up expansion tank, add rest of dye in 20 gals water at 170-180 F.
Add:
10 lbs caustic
10 lbs hydro
Let stand 15 minutes to completely reduce color. Check for complete reduction.
Pull plug, adjust throttle valve to flow of 600-650 gals, to avoid splitting beam when circulating inside.
Circulate: 10 minutes in, 5 out, 5 in, 5 out, 5 in, 5 out, 5 in.
Do *not* drain dye. Add 450 lbs ice, give cold rinse, inside-out, 8 minutes with 18 lbs acetic acid 56%, slowly added to tank. Rinse until clear of all color and caustic.
Oxidize with 1% Albone C for 20 minutes at 130 F.
Soap for 20 minutes at 190 F:
6 lbs soap
4 lbs TSPP

Ice With Direct and Developed Colors. Although the use of ice to cool the dye bath during diazotization and developing of direct and developed dyes is well known, the methods used at Dundee Mills in package dyeing will be of interest to other dyers.

Material: 670 lbs of 20s yarn on 600 packages, 300 packages per machine. Ratio 8 to 1. Boil off in normal way, rinse with hot water. Set bath at 100 F.
Prepare:
5.7% (owf) Diaminogen Blue NAA (Pr. 529)
0.85% (owf) Diazo Black BHN Conc. (C. I. 401)
Boil up in 40 gals water, let simmer for 10 minutes.
NOTE: It is important to get dye completely into solution—bring to boil and let simmer until foam disappears.
Add dye in two parts; run 7 minutes out, 3 in, 7 out, 3 in.
Raise to 200 F.
Add 240 lbs salt while circulating 7 minutes out, 3 in.
Circulate 7 minutes out, 3 in, 7 out, 3 in, 7 out, 3 in.
Drain.
Rinse cold, 3 minutes outside, 2 in, with 300 lbs ice.
Refill with cold water.
Add 450 lbs ice.
Add 18 lbs sodium nitrite, dissolved cold.
Circulate 7 minutes out, 3 in. Keep temperature below 80 F.
Add 30 lbs sulfuric acid slowly to expansion tank.
Circulate 7 minutes out, 3 in, 7 out, 3 in.
Drain, fill cold, circulate 5 minutes.
Rinse cold, 4 minutes out, 4 in.
NOTE: Circulate and flow out to be sure that all acid is removed.
Drain, fill cold, add 450 lbs ice to expansion tank.
Add 12 lbs beta-naphthol dissolved in hot water with 6 lbs caustic soda. Circulate 7 minutes out, 3 in, 7 out, 3 in. Temperature must be kept below 80 F.
Drain.
Fill cold, circulate 5 minutes, then rinse cold, 3 minutes out, 2 in.
Soap at 160 F for 20 minutes.

ICE on top of package dyeing machines helps to cool bath during rinsing of reduced Vat Pink FF. Where outside water jackets are used less ice should be required.



Mill-made blending system prevents streaky dyeing

Big Sandwich Mix for Rayon

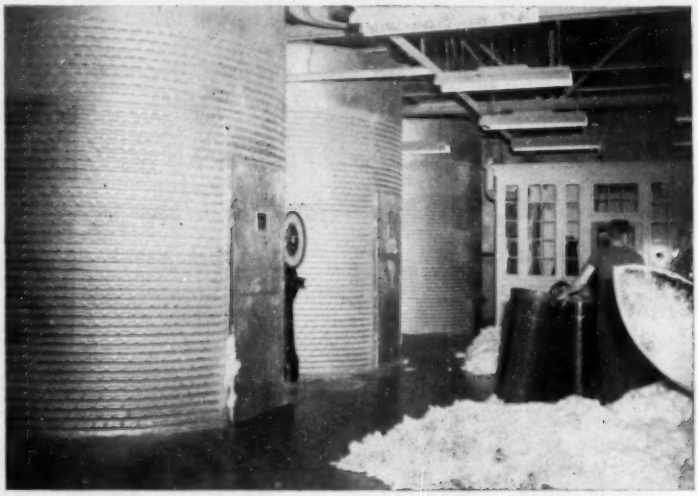
Staff Prepared
EXCLUSIVE

TUFTED carpets tend to streaky dyeing where fiber blends are not thoroughly mixed. This fact dictated the installation of a comprehensive mill-made blending system at a plant which had adapted conventional linen-system spinning equipment to the production of tufting yarn.

The mill, Revonah Spinning Mills, Hanover, Pa., is one that has always concentrated on supplying the carpet manufacturer. Its long established jute system for producing backing yarns is now joined by a 7 million-pound per year output of rayon, rayon-nylon, rayon-wool, acetate-wool, and wool-nylon yarns for tufting purposes.

The Problem. Rayon, the major fiber consumed in this linen system spinning, was in itself the main reason for development of the blending system.

The stock, consisting primarily of 17-denier rayon in both bright and dull lusters, is purchased from several sources. Suppliers include those located in the United States, Cuba, Austria, and Western Germany. Variation of dye index from one producer to another is inevitable; side-by-side stripes of three yarns, alike in denier, staple length, and count, but differing in origin, when sewn up on the mill's sample tufter and dyed, readily show up as three different depths of the same shade. If fibers from these various sources are not thoroughly mixed in production, therefore, shady and streaky dyeing is bound to result.



STORAGE BINS in back of the cards were made by the mill from corn cribs.

The Sandwich. Bales are opened and the blend weighed out in back of the first mixing step, a Sargent feeder. This machine serves to open the stock. The delivery of the feeder is blown to an upper floor level through a duct equipped at its terminal with 10 outlets, each one manually movable and each one directed to a bin. Blends are made up in 50,000-pound lots, and production from the feeder is 7,000 to 8,000 pounds per hour.

As noted, each outlet feeds to three bins at a time, mixed in the bin aisle at D until the three bins are exhausted, and then the other bins containing the lot are mixed in a similar manner.

The aisle mixes are blown to another feeder E, where moisture is added to the stock.

The mix continues to corn-crib bin F until it is filled, and then to bin G.

After a 24-hour aging in bins F and G, the stock is placed on the floor at H, and blown to similar corn-crib bins I and J in the card room. Mix is removed from one bin at a time and fed to the hopper of the card at K.

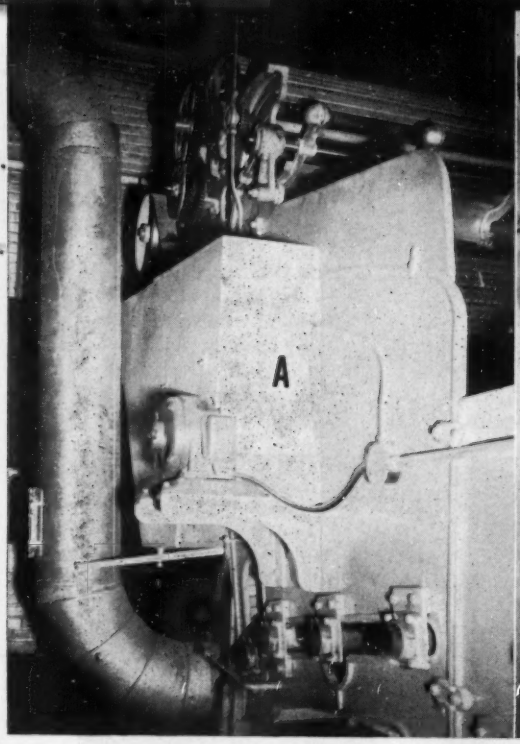
How Revonah's Blending System Operates →

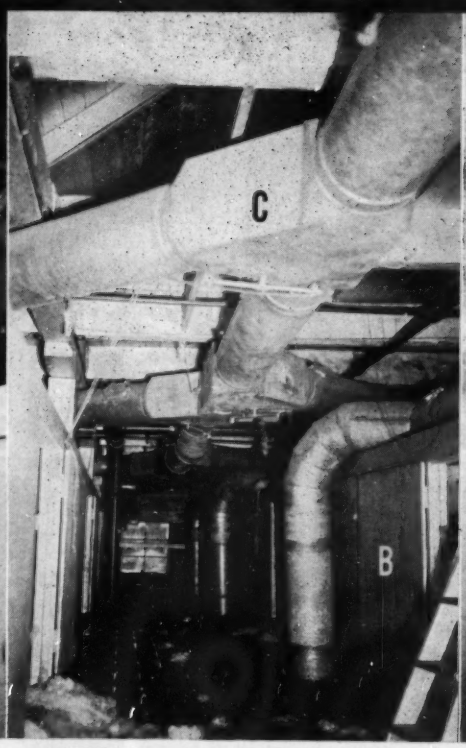
Blending cycle starts from feeder at A, with stock being blown up to one of ten bins B through duct directed into bin at C.

Two feet of stock is allowed to build up in each of six or seven bins in this manner. Then another layer is built up in the same way to a two-foot thickness, and so on until the lot is run through and the bins contain a sandwich mix.

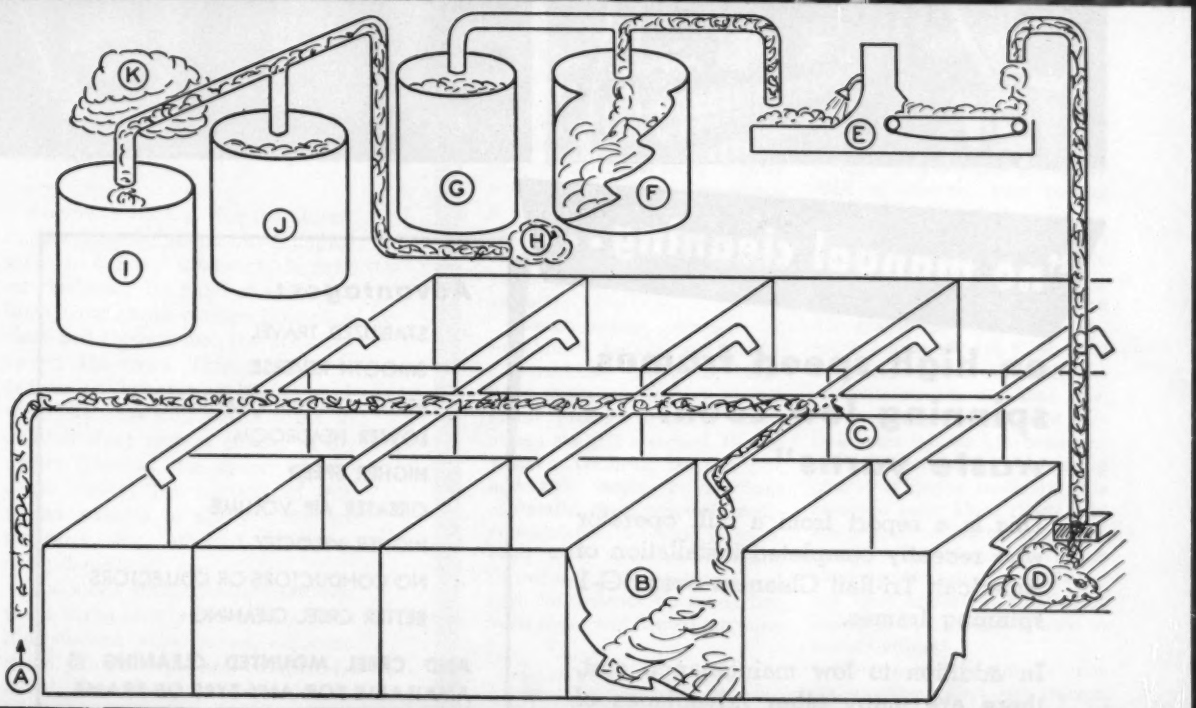
The "floor" shown in the middle photo at the top of the next page is actually a catwalk at the upper level of the bins. It is used for duct control and bin packing from the top.

Alternate bites from the sandwich are taken from


A


C
B

B


K
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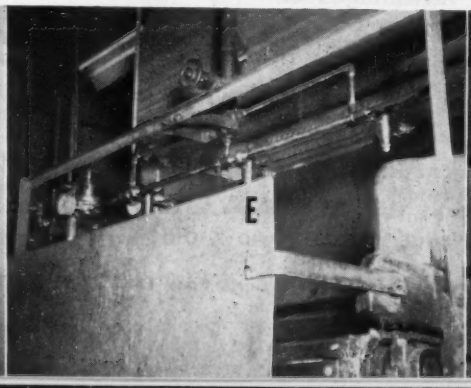
D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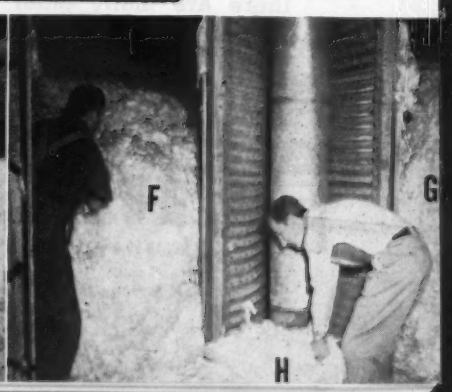
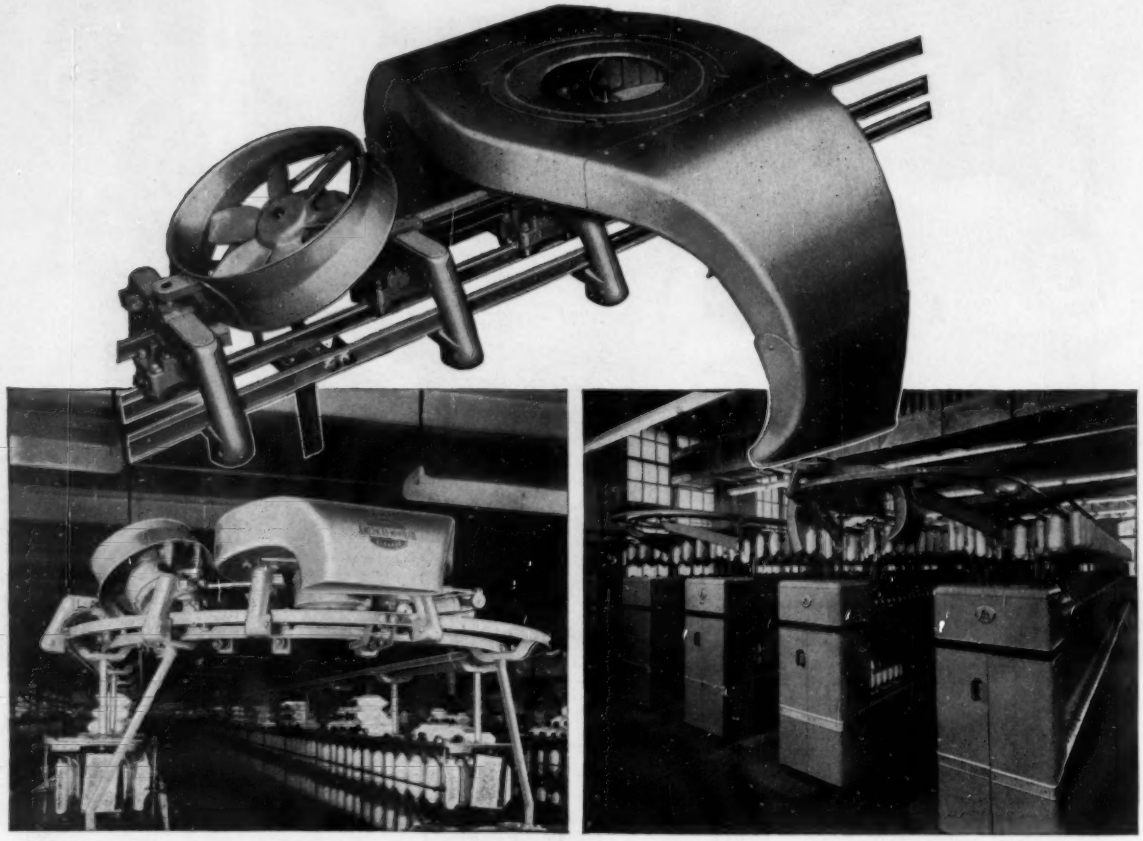

F
G
H



"no manual cleaning . . .

on high speed frames spinning low count waste yarns"

This is a report from a mill operator who recently completed installation of American Tri-Rail Cleaners over SG-1 spinning frames.

In addition to low maintenance cost, there are many other advantages of American Tri-Rail Cleaners.

SEND FOR BULLETIN TR-1

Advantages:

- STABILIZED TRAVEL
- SMOOTH REVERSE
- BETTER CEILING CLEANING
- LOWER HEADROOM
- HIGHER SPEED
- GREATER AIR VOLUME
- HIGHER VELOCITY
- NO CONDUCTORS OR COLLECTORS
- BETTER CREEL CLEANING

AND CREEL MOUNTED CLEANING IS AVAILABLE FOR ANY TYPE OF FRAME.

AMERICAN OVERHEAD HANDLING EQUIPMENT

MONORAIL COMPANY

13106 ATHENS AVENUE • CLEVELAND 7, OHIO

LET AN AMERICAN MONORAIL ENGINEER GIVE YOU ALL THE FACTS ON SAVINGS AND ADVANTAGES OF TRI-RAIL CLEANING.

one of 10 storage bins. The bins are constructed of plywood with a door and a window in each in much the same manner as is standard for wool mill storage bins. The bins are arranged in two rows of five, with an aisle between. Above the door level of the bins, a catwalk has been built so that the duct terminals may be properly shunted and bins reached from the top for packing by operators.

In the ordinary blend calling for a mixture consisting principally of rayon in some form, six or seven of these bins are used to make a giant sandwich mix as follows: production from the feeder is directed into one bin by manual opening of the door in the duct terminal above the bin, with all other doors remaining shut; this feed is allowed to continue until the bin contains a two-foot depth of stock. This feed is then closed and the next opened, filling the second bin with two feet of stock. This procedure is continued until all six or seven bins are filled to the proper level; the entire procedure is repeated until layer-by-layer, bin-by-bin, the lot is completely run through the feeder.

Second Blending. The lot, stored in the six- or seven-bin complement in the big sandwich, is next cut vertically by hand in alternate bites from three storage bins at a time and thrown into the aisle between bin rows. This mixture is fed to an opening at floor level from the aisle mix which leads to another duct system ending at an upper floor at the apron of another feeder. The purpose of this feeder pass is to apply sufficient moisture for efficient spinning room handling.

The stock thus transferred from these three bins is blown to a two-bin storage area in an adjacent room. These bins are completely filled, one bin at a time without benefit of any layer order. Purpose of this storage is to allow the recently applied moisture to permeate the stock thoroughly and evenly; this aging is carried out for a 24-hour period.

The two storage bins used as a last stop for this second blending differ from the first set of 10 bins in that they have been adapted from galvanized iron corn cribs. The bottoms of these compact units have been removed, doors installed and the cribs inverted so that vents are in line with air flow from above.

Last Stop. After 24-hour storage in the corn cribs, the thoroughly mixed and conditioned stock is blown to a similar pair of bins installed directly behind the card feeds for easy handling.

Handling Blends of Dacron and Cotton

The fabric strength of a blend of Dacron staple and cotton in low percentages of Dacron is lower than all cotton until as much as 60% Dacron is used, due to the different elongation characteristics of the two fibers. To achieve a basic fabric with a high performance level, at least 65% Dacron polyester staple is needed in an intimate blend with long staple cotton. Then, with proper fabric construction, dyeing, and finishing, and garment fabrication, a product is obtained that is attractive, comfortable, easy to care for, and long wearing.

In certain fabrics, Dacron will pill. This can be controlled, however, if the proper yarn and fabric construction and finishing techniques are used.

To control pilling: Use of high yarn twist is important; range of 4.00 to 4.50 will do a good job. Higher twists can be applied without adversely affecting the fabric hand. Fibers with a higher denier per filament usually pill less than ones with lower denier per filament.

Loosely woven constructions pill worse than more tightly woven constructions. Sometimes it is desirable to use a finer yarn count so that tighter constructions may be made. Plied yarns are preferred to single yarns.

Dacron-cotton fabrics of broadcloth, batiste, and poplin constructions made of high twist single or plied yarns and given proper finishing treatments are pill resistant. Basket weaves, Oxfords, linen types, and skip dents, in shirtings especially, show generally poorer resistance to pilling in wear, even with optimum finishing procedures. The combination of high construction twist and fine yarn count will contribute to an inherently good fabric.

Finishing. Dacron-cotton blends can be prepared for dyeing and finishing by using normal cotton desizing enzymes, or by mild scouring methods. Since high temperatures tend to set some stains in Dacron, 100-120 F pre-scour is important in removing a large portion of the size, dirt, oil, and grease. Very dirty grey goods should not be heat set prior to scouring.

Pre-scour the fabric for 20 minutes at 100-120 F; drop the bath and scour in a fresh bath at 180-200 F; increase amount of detergent for badly soiled goods or add one or two per cent by volume of a solvent such as Xylene or Varsol. Important to rinse out all the Xylene since it has a moderate carrier effect in dyeing. Solvent should be emulsified with a non-ionic detergent prior to adding it to the scour bath.

Normal cotton mercerizing, including the treatment with highly concentrated caustic, is not harmful to Dacron as long as the temperatures are kept low; since caustic soda solutions at high temperatures gradually dissolve Dacron, kier boiling should be avoided.

Following preparation, bleach blend with Textone and nitric acid. Run for one hour with 2 grams per liter of Textone and 0.5 grams per liter of 61% nitric acid at 180-190 F. Mineral acids can injure cotton if the concentration is not kept low.

The pilling resistance of certain spun fabrics has been improved by including a brushing operation in the finishing; this removes some loose fibers and raises others, which are later removed by shearing and/or singeing. Singeing is probably the most important single finishing operation that is used to reduce pilling.

Compressive shrinkage has no adverse effect on Dacron fiber.

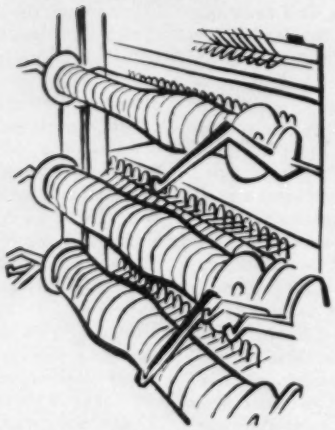
Abstract of an address by James S. Rumsey of DuPont before the American Association for Textile Technology, Inc.

Wool carders -- here are some things you can do when there are

too many ends down in

1 CHECK

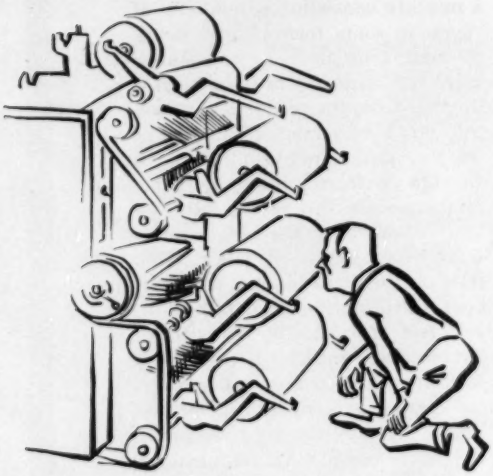
SPOOLS FOR CONDENSING



Check spools of roving for signs of uneven condensing—one end of a spool may be too soft, causing slack ends that creep up on spools on the spinning frame or run down under and break. This may be due to improper setting of aprons at one end or worn out aprons.

2 CHECK

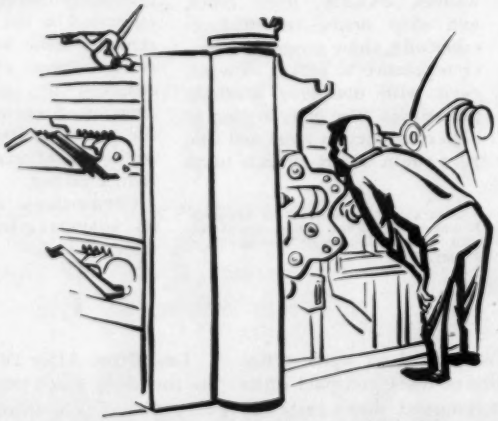
TENSION ON ALL ENDS

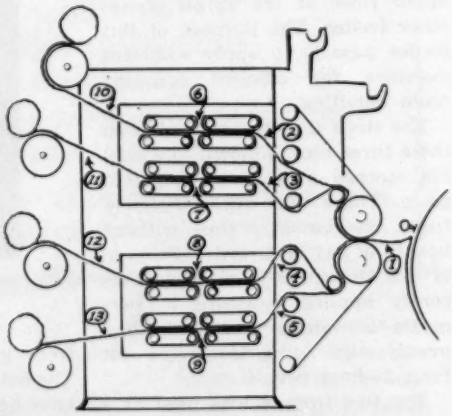


See that all ends coming off the condenser are wound onto the spools with a minimum of tension and that the tension is uniform on all spools being wound. Marked unevenness in tension from spool to spool will cause end breakage at the spinning frame. If draft of spinning frame is set to accommodate loosely wound spools, ends will break on spools that are tightly wound, and vice versa. Draft set for the tightly wound spools results in roving ends on loose-wound spools running or creeping up on the spools or running under on the opposite side and breaking.

4 CHECK

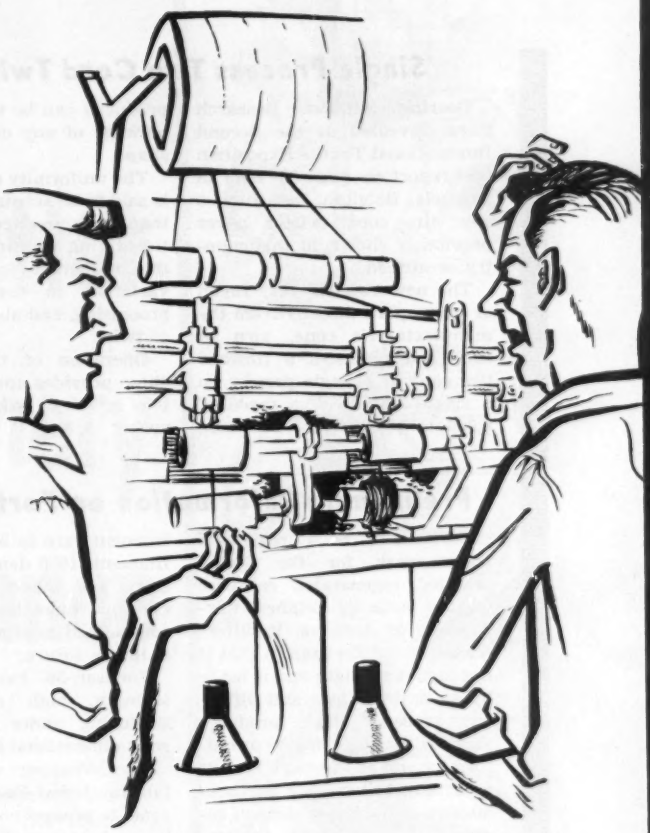
DRAFTING OF WEB FROM TAPE DOFFER ALL THE WAY TO SPOOLS





Check drafting of the web from tape doffer all the way to the spools. On the double-rub, four-bank tape condenser, there are 13 points at which drafting should be checked (see sketch at right above). Drafting should be as slack as possible to give the spinner every advantage in drawing out the roving while twisting in order to reduce end breakage at the spinning frame.

spinning...

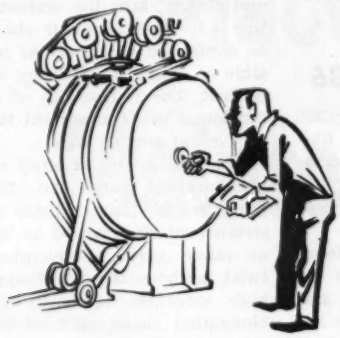


Don't jump at conclusions, Boss Carder, when the boss spinner comes to you with a manufacturing problem. Discuss all phases of it with him and help determine the source of his trouble. Remember, your department could be at fault—be the first to recognize and admit this.

Staff Interview

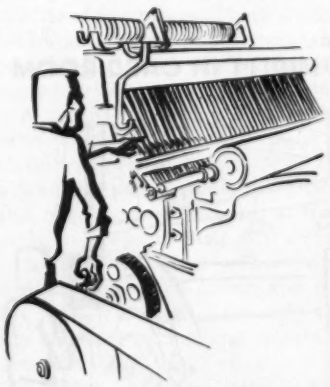
EXCLUSIVE

3 CHECK CARDING SPEEDS



Be sure that carding speeds are commensurate with the type of stock in process. Trying to get too much production from a card injures spinning qualities of yarn, makes rough roving.

5 CHECK CONDITION OF TAPES

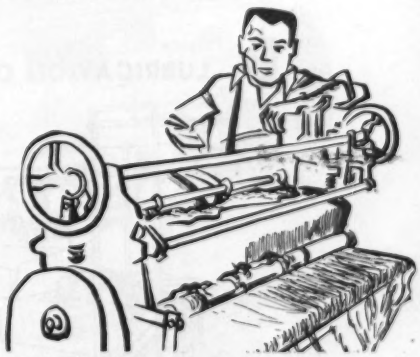


Watch carefully the condition of the tapes—broken roving ends on spools, another source of ends down in spinning, can be caused by bad tapes.

6 CHECK GRINDING INTERVAL

Is the established stripping interval proper and being adhered to? Cards run for too long a time without stripping produce rough, weak yarn.

7 CHECK CONDITION OF PERALTA ROLLS



Keep check on condition of Peralta rolls. If spinner reports excessive end breakage at travelers, it may be caused by small pieces of vegetable in yarn—this may indicate that Peralta rolls need regrinding.

Continued next page

Single Process Tire Cord Twister

Deering Milliken Research Corp. revealed at the Second International Textile Exposition (see report on page 55) held in Brussels, Belgium, last June a new tire cord twister never previously shown in this country or abroad.

The new twister takes rayon or nylon yarn directly from the manufacturer's cone, pirn or tube and produces a finished tire cord in a single process on a single spindle at a speed of 8,000 to 10,000 rpm. The cord produced can be taken up on a package of any desired size or shape.

The uniformity of the product is said to be substantially better than cords produced on conventional ring twisting because of the reduction in knots, less variation in tension during processing, and absolute control of twist.

Operation of the new machine provides appreciable savings in labor, power, and floor space.

Preliminary Information on Fortisan-36

Fortisan-36 is a registered trade mark for the highly oriented regenerated cellulose (rayon) made by Celanese Corporation of America. It differs from regular Fortisan in that it has higher strength and is made by an entirely new and different process which produces yarns with a high degree of uniformity and at the same time is especially suitable for the production of the heavy deniers required in industrial applications.

For the present, Fortisan-36 will be manufactured commercially only as a continuous filament yarn in 800 denier/800 filament. 1600 denier/1600 filament and other denier yarns and tow have been made but commercial production of these is in the future.

Fortisan-36 has exceptional strength, high resistance to stretching under tension, and good dimensional stability.

The weaving of industrial fabrics from Fortisan-36 appears to present no special problems: however, for maximum yarn and cord efficiency in fabrics, 800/1, 800/2 and 800/3 yarns and cords are recommended. In addition, the crimp level should be kept as low as possible.

Experience indicates that with cords, and with single yarns having a twist multiplier above 150, sizing application is not required. The twist multiplier is defined as the product of the twist and the square root of the denier.

When processing filament yarns and cords, it has been found that satin finished metal and ceramic guide surfaces give satisfactory results, while polished steel and glass guides cause filament breakage with subsequent loss in strength and yarn appearance. In twisting and plying yarns the tension in the individual elements should be controlled as closely as possible or strength efficiency will be lost. The uniformity of the tension is more important than the actual tension used.

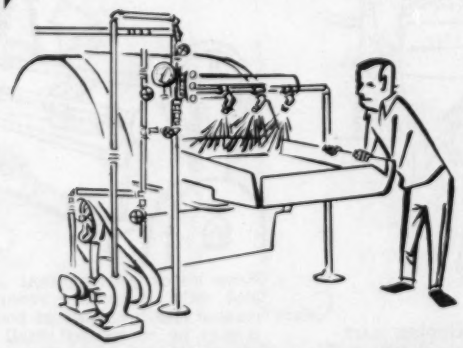
The method of twisting singles and ply yarns can effect the strength and fatigue resistance of Fortisan-36 as well as other yarns. Conventional twist methods on exceptionally high strength, relatively low elongation yarns, such as Fortisan-36, often times do not utilize the optimum strength of the individual filaments.

Tests on a laboratory fatigue tester on cords made of 800 denier 3 ply yarns with a twist of 15Z x 10S have shown that an improvement of up to 250% can be obtained when twist is applied to Fortisan-36 yarns by a new method.

Information supplied by Celanese Corporation of America. Additional technical data may be secured directly from the company.

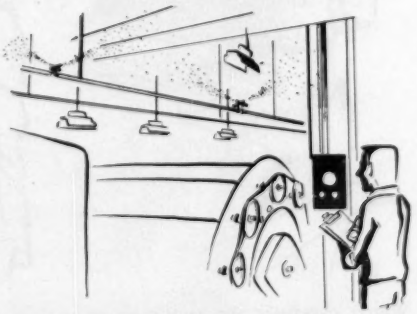
too many ends down in spinning (continued)

8 CHECK
LUBRICATION OF STOCK



Check for proper lubrication of stock. Is right emulsion being used? Is emulsion apparatus functioning properly?

9 CHECK
HUMIDITY IN CARD ROOM



Keep humidifier system in good condition so that proper humidity is maintained. This is important in carding and spinning, but it is most important in the card room.

A veteran operating executive passes along these tips for

Better Machinery Maintenance

By Maley Chagro

EXCLUSIVE

ONE OF the keystones in machinery maintenance is the supervisor who knows and understands each machine in his department. The overseer should be able to supervise and be willing to pass on his knowledge to his assistants. He should select his secondhands, section men, and oilers with care. These men should have proved themselves worthy and dependable, and should be properly trained.

Proper lubrication is essential to the life of machinery. There should be an oiling schedule for each type of machine, and this should be posted in the proper department.

A record should be kept of all new belting, screens, beaters, clothing, aprons, or any other replacement part installed. At first this may seem useless, but as time goes on these records will prove to be valuable. They will serve as a double check on fixers and oilers, and will show how well the maintenance and oiling schedules are kept up.

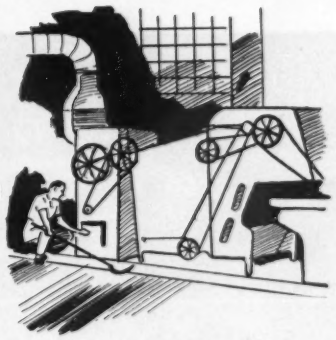
Another important item in machinery maintenance is cleanliness and good housekeeping. Training operators to take pride in the machinery will in turn cause section men and other personnel to have more pride in their work. This will make the job attractive to the best type of employee. The following schedule from a large New England mill shows how thoroughly every phase of maintenance was checked, with clear instructions and scheduling to guide personnel.

Opening and Picker Maintenance. Overhaul the opening and picker machinery once each year. Keep a record of all new parts put on the machinery. This should be done when overhauling or whenever a new part is needed. Always check for the cause of parts replacement. Records should also be kept on other repairs and daily maintenance.

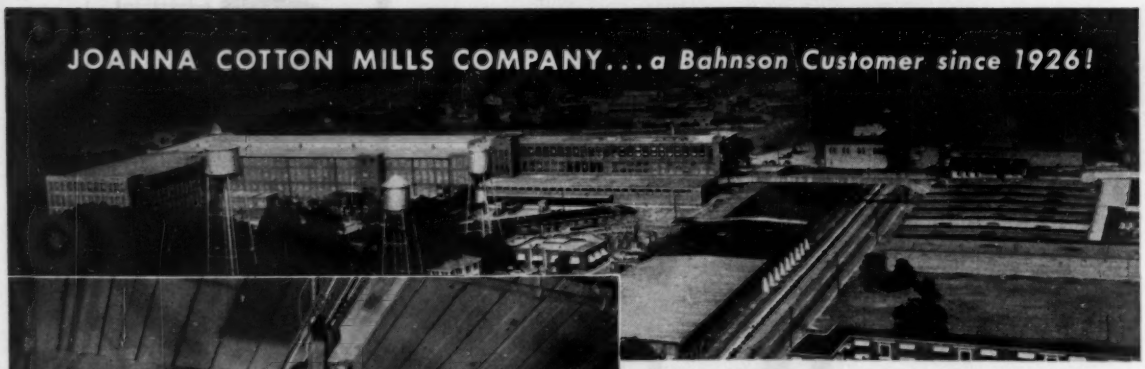
Machines are to be inspected periodically by the overseer or the secondhands, as to the condition of gears, bearings, belts, screens, beaters, and beater settings.

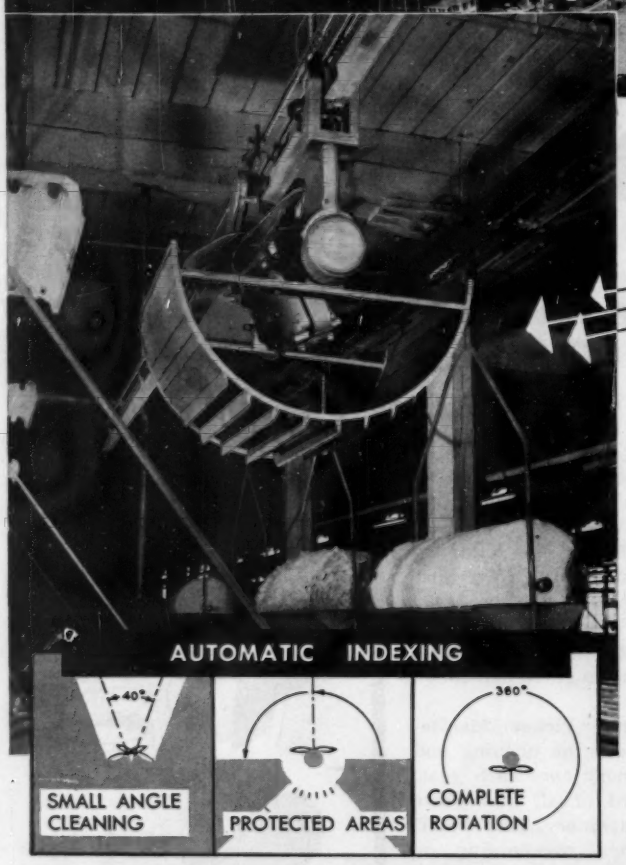
There is no set standard as to when parts stock must be replaced; but if machinery is properly lubricated, properly set, and thoroughly cleaned as scheduled, maximum usage of the parts stock is assured and costs lessened. Reports on usage of parts stock shall be kept by the overseer.

Card Maintenance. The cards



JOANNA COTTON MILLS COMPANY... *a Bahnson Customer since 1926!*





Weekly blow-down of ceilings and machinery in this Card Room have been completely eliminated by the Allred Cleaner, as shown by this unretouched photograph taken after several months of cleaner operation. The ceiling had not been blown-down manually since the Allred installation, and none is anticipated in the future. The cleaner rotates a full 360° to clean the cards, as well as the ceiling and walls. Part of the U-Shield blades are closed to protect the webs.

This prominent manufacturer, a user of many types of Bahnson equipment, reports greater cleaning efficiency and economy with Allred Traveling Cleaners.

ALLRED Traveling CLEANERS

Fully automatic cleaning eliminates blow-downs, improves product quality!

End costly shutdowns for manual cleaning! The new Allred Traveling Cleaner *completely* cleans walls, ceilings, monitors, sash openings, beams . . . all other lint-collecting surfaces in a pre-determined pattern.

Blowing perpendicular to its ceiling-suspended or column-mounted track, the Allred Cleaner completes a circuit at a pre-set angle, then *automatically* indexes to a different air flow direction for each succeeding circuit, the total cleaning arc variable from 40° to a full circle. This directed air blast of the Allred, with its 1/3 horsepower motor, has proved more effective than ceiling cleaners requiring up to 2 hp.

Adjustable U-Shield blades protect card webs or other critical areas from the air blast. This is particularly effective in cotton carding and intermediate areas, and in circular knitting, where it keeps stop motions thoroughly clean.

Get full details on the efficient, time- and money-saving Allred Cleaner, already proved in Joanna Cotton Mills and other leading plants. Or write for information on our complete line of automatic cleaning equipment.

* **91 OF THE TOP 100**

Of the 100 top textile manufacturing firms in the nation, 91 are users of Bahnson equipment . . . a record of preference that is high testimony to Bahnson engineering skill.

Bahnson COMPANY
WINSTON-SALEM, N. C.

AIR CONDITIONING • HUMIDIFICATION • CLEANING

shall be gone over once each year, and screens cleaned and polished. All worn parts, such as feed roll bearings, licker-in bearings, etc., must be replaced.

Here again the importance of proper lubrication is emphasized. Bearings will last many years if the maintenance schedule is strictly followed.

Comb boxes shall be taken down and washed out and new oil added at least once every two years. The licker-in, cylinder, and doffer clothing shall be inspected by the secondhands or overseer during grinding. When a licker-in is found in bad condition it should be taken out at once and resharpened, or if necessary re-covered.

A record of cards reclothed, new flats installed, and lickers-in replaced, shall be kept by the overseer. Grinding schedules and cards ground shall constantly be checked.

Draw Frames. One draw frame shall be scoured each week by the fixer. At this time an inspection of all top rolls and roll necks shall be undertaken by the overseer, secondhand, and fixer. Top rolls can be easily damaged with hooks or knives (tenders are not allowed to use knives). Proper instruction shall be given the tenders in the removing of waste or laps from the rolls. The fixer should be called at once if any difficulty arises from this source.

Steel rolls, bearings, gears (approximately a ¾ mesh of the teeth is recommended to prevent grinding and achieve maximum usage of the gears), calender rolls, and tube gears shall also be checked. The fixer shall check closely for worn flutes or badly nicked steel rolls, and these should be removed if warranted.

Bearings shall be thoroughly cleaned and oiled. Here again proper lubrication is important.

Roll settings shall be checked at various intervals against our present standard settings. A simple and effective method for checking roll settings is to place a narrow strip of carbon paper on a piece of white paper and place between the rolls and lightly tap the top rolls. The settings are easily measured between impressions. However, at scouring time the rolls shall be set by gauge and checked by supervisors.

The quality of the clearer cloth is important. When worn, have it replaced with a cloth with a good long nap. It is important also that the fixer brush up the nap during the scouring period.

Lap Winder. Scour lap winder every six months. Here, cleanliness is of prime importance.

Driving chains shall be inspected periodically. Taut or loose chains create uneven laps; capstan and sliver table shall be kept well polished.

All running parts and bearings shall be properly lubricated.

Roving Frames. Roving frames must be overhauled once each year — lined, leveled, and all worn gears and bearings replaced. For gears and bearings the same procedure shall be followed as recommended for the draw frames.

When necessary, flyers shall be reworked and balanced, and these shall be periodically inspected by the overseer and secondhands.

Check steel rolls for loose joints and bad flutes. When oiling joints the oiler should be instructed to clean out plugged openings.

Top rolls shall be oiled once a month — more often if necessary, depending upon condition and stock processed. Oiling schedules should be posted.

A record shall be kept of all worn parts removed and of new replacements. Supervisors must inspect all worn parts before they are discarded.

Spinning. Spinning maintenance shall be accomplished by periodic checking of every part of the frame. All overhauling shall be done by men who have the knowledge and interest to perform meritorious work. This will be accomplished by good supervision. Valuable parts stock can be wasted if not properly set and installed. Spindle setting calls for the highest skills and only employees with good eyesight should perform this task. Eye tests are available at first aid; recommendations, such as for eyeglasses, should be followed.

Spindles are set at three-quarter and quarter positions. The procedure in this plant is as follows: Run rail up to three-quarter position and plumb all spindles offset. Bring rail back to quarter position and for all spindles offset, chalk-mark the creel above spindle. Light kraft paper shims shall be used and all spindles set at this level.

Run rail back to three-quarter level and check and reset if necessary all spindles beneath the chalkmarks. If any slight variation ensues it will cause less trouble at the quarter position than at the three-quarter spot. However, all secondhands shall spot-check spindles immediately after setting.

Spindle speed should be stepped up to a certain extent before plumbing, to assure as near perfect a job as possible. This will show up bad bolsters and shaking spindles more quickly, and insure a much better job and better running conditions when the speed is reduced to normal operating range.

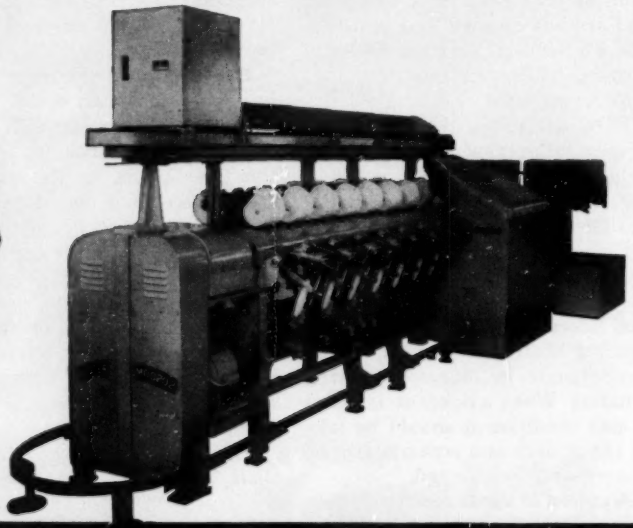
Rings should be checked for ex-

Selection of dependable key personnel necessary for proper maintenance.

Reducing parts-stock costs by supervised maintenance can result in large savings.

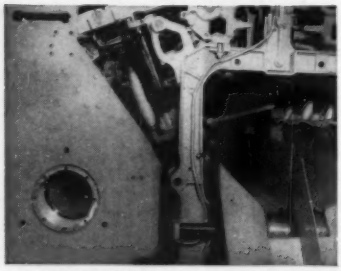
Maintenance schedules should constantly be checked by supervisors.

FOSTER MODEL 202

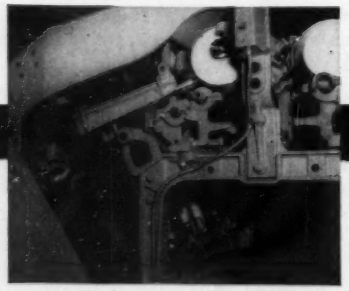


...The ONLY Automatic Cone Winder Which Gives You QUALITY with QUANTITY

Model 102 and Model 202 cones.



Full bobbin moving into supply position and empty bobbin being doffed to conveyor.



Looking into automatic tender and showing aspirator which sucks up loose end from cone.

Look at the two cones illustrated. They appear identical because they *are* identical. Yet one was wound on the Foster Model 102 and the other on the Foster Model 202. Enough said, perhaps, since Foster Model 102 cones have been the standard of quality in the knitting industry for many years.

KNITTABILITY of cones is an exclusive feature of the Foster Model 202. So why look elsewhere when the Model 202 also gives you all the other features you want as follows? —

- INCREASED PRODUCTION PER OPERATOR — between 100% and 300% over non-automatic winders.
- AUTOMATICALLY positions supply, locates and ties ends down (in weaver's knot), doffs bobbins, conveys empty bobbins to one bin and partially filled bobbins to another.
- ONLY DUTIES OF OPERATOR are to put full bobbins in chutes, put loose end in clip, don and doff cones and thread up new cones.
- PAYS FOR ITSELF in 2 to 5 years.

Get ALL the facts. *Write for Bulletin A-100.*

FOSTER MACHINE COMPANY

A Winder for Every Textile Purpose

Westfield, Massachusetts, U.S.A.

Southern Office — Johnston Bldg., Charlotte, N. C. • Canadian Representative — Ross Whitehead & Company, Limited, 1475 Mountain St., Montreal, Que. and 35-37 King St. W., Toronto, Ont. European Representative — Muschamp Textile Machinery, Limited, Keb Lane, Bardsley, Oldham, England.

cessive wear. This can be noted if the web of the rings is deeply grooved or the under flange exceptionally wavy. Wrong traveler circles will almost invariably cause such a condition, and should be corrected. Tables are available which give the proper circle travelers to use. In general, too large a circle will score the web, and too narrow a circle will cause a wavy condition beneath the flange of the rings. All these factors reflect up the quality of the work and must be constantly checked.

Scouring and spindle setting shall be done twice yearly on a two-shift basis. On three shifts, this shall be done every four months.

Have an extra set of top rolls in a box. Move front rolls to back and replace front with rebuffed rolls. Have back rolls which were taken off rebuffed and made ready for the next frame. It is important to keep records of frames on which rolls are put on or taken off, new rolls, rebuffed rolls, and when back rolls are rebuffed and shifted from one frame to another.

The number of buffings will depend on the condition of the rolls and the rebuffing itself. After the second rebuffing and at the time the next change is due, all rolls must be carefully inspected for undue wear and cracks. The average life of the rolls, as used in this mill, is approximately five years, using as a yardstick a one-shift basis. This means that on a two shift basis the average life would approximate two and a half years.

Periodically the secondhand will inspect the rebuffing records and inspect frames with the section man if any doubt exists that rolls should be changed. Every two scourings, take out head end and remove gears. Wash, replace, reset, and oil. Check bushings.

Roll Pickers. All rolls shall be cleaned according to schedule. The schedule will be subject to changes, depending on the type of work run, hours of operation, and whether coarse or fine work. Frames on coarse work need to be cleaned oftener than those on fine work.

Miscellaneous Pointers. *Oil waste:* Hundreds of gallons of oil can be wasted annually by haphazard methods, and careless attention to oiling needs. It is not a pretty sight to see oil dripping off rails, ladders, and sides of frames. It is a needless waste and increases costs. It is important that only section men set the gauges on all types of pump oil cans. Once set, the oiler should be instructed not to tamper with them. Periodic inspection by the secondhand should be undertaken to check up on all oiling methods, and steps taken to eliminate oil waste.

Spare Parts. All parts stock shall be kept under rigid control of the stock room. No parts stock shall lie around in the production room or in any other area except the stock room.

High quality production, high operative morale, and low costs go hand in hand. To maintain all of these, it is necessary to adhere as much as possible to a systematic schedule.

Good maintenance of machinery and equipment contribute tremendously to lower costs and higher quality; and experience has proved that if a process fails to meet the standards that a machine operator recognizes, he becomes dissatisfied with it. His morale is lowered.

Machines which are kept clean and in good condition can help you and the company which you work for. Careful planning and supervision will bring to the plant a well organized maintenance schedule with a corresponding increase in quality and efficiency.

Proposes Way for Industry to Regain Its Share of Consumer Dollar

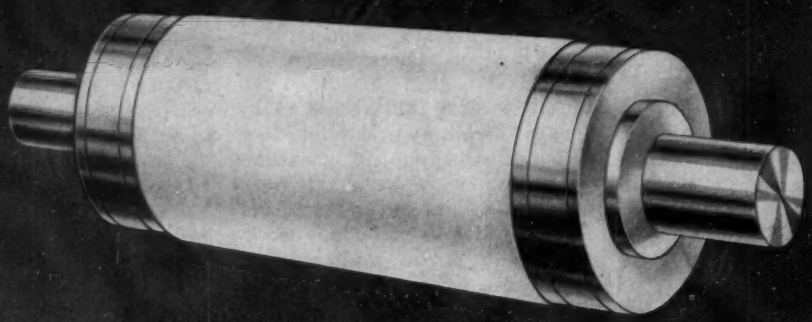
"It seems to me that the way for the textile industry to regain its share of the consumers' dollar is charted out for us by the philosophy of the automobile industry of trading up its product to be worth more because it fits more attractively into the pattern of modern living," Andrew E. Buchanan, Jr., general manager, Textile Fibers Department, E. I. du Pont de Nemours & Company, Inc., said recently.

"We must recognize the opportunities in special-purpose apparel demanded by modern living and place our emphasis on innovation—the creation of better garments from better fabrics," stressed Mr. Buchanan.

"Our new mode of life is calling for new types of clothing—more casual, more comfortable, lighter in weight, easier to maintain, and more specifically designed for the special purposes modern folks have in mind when they buy clothes. Similarly, for our household fabrics we are demanding textiles fashioned to meet the specific needs of modern living—quick drying, no ironing window curtains, contour bed sheets, cleanable upholstery, moth proof rugs, and the like," he explained.

SCOURERS DUTIES	Notes
1. Take off clearers and put in boxes.	Wash hands before cleaning clearers.
2. Take off saddles and put in box.	Remove to compressed air cleaner.
3. Take off top rolls.	On Casablanca place knurled top rolls in box. Remove to air cleaner.
4. Put steel rolls on racks.	Remove aprons.
5. Scour steel rolls.	Check for bad flutes and loose joints.
6. Clean roll stands.	Check bearing surfaces.
7. Blow off knurled rolls and saddles.	Return to frame.
8. Clean cap bars.	
9. Clean aprons.	Replace worn aprons and leather.
10. Line and level stands.)	Hand check for binding.
11. Replace steel rolls.)	
12. Replace top rolls, saddles, aprons, and clearers.	(Read top roll procedure.)
13. Adjust cap bars.	Gauge set.
14. Oil rolls and joints.	Do not drip oil on rolls.

"HOLYOKE"
CALENDER ROLLS



HOLYOKE MACHINE COMPANY

CALENDER ROLLS for the PAPER and TEXTILE INDUSTRIES
WATER FILTRATION EQUIPMENT
HOLYOKE, MASSACHUSETTS

The Chain Reaction of Inflation

By Ringgold Arden

EXCLUSIVE

AS WE have observed before, labor unionism as practiced in the United States is for the most part legalized banditry. The old-fashioned bandit seized and held your person or that of a member of your family for ransom. The modern bandit holds your property for ransom.

If the mere holding of the property does not produce satisfactorily lucrative results promptly, the property can be damaged to speed up the negotiations for its release.

Far from making any effort to prevent such practices, the national government encourages them, and in effect subsidizes them. People who have voluntarily refused to work in a place of employment are held by the national government to be entitled to unemployment compensation payments to assist them in their conspiracy to wreak sufficient damage upon an employer to impel him to accede to their demands for whatever it has pleased them to ask.

A strike is a conspiracy to cause damage. It is hypocritical to regard it as anything else, because that is its only purpose. The hoped-for result of this damage is to force the damaged person to buy off the conspirators in the belief that this will be cheaper than suffering the damage.

We have recently had a most convincing example of the truth of the observations just made. Some of the most powerful business enterprises in the world have meekly submitted to demands made by an even more powerful organization, exercizing complete monopolistic control over the employees in the entire automotive industry. The labor monopoly, in effect, simply held a knife to the throat of one corporation after another, and threatened to use it if the demands of the labor monopoly were not granted. These demands this time amounted to about 20 cents an hour per employee.

The people who comprise the labor monopoly which controls the manufacture of automobiles are already grossly overpaid by any rational method of computation, if we still claim that the United States maintains a competitive economy.

There is nothing particularly distinctive about working in an automobile plant or that of a steel company, or of digging coal, or doing any of the other things done by the people who maintain these various iron-clad monopolies over whole industries. Practically anybody can do this kind of work, and the differential in pay that the monopolists get is not due to anything except the economic pressure which can be brought to bear on employers by virtue of this monopoly control.

According to the latest figures we have at hand, the average wage rate for all persons employed in manufacturing in the United States was $1.75 an hour one year ago. This average includes of course the highest paid and the lowest paid employees in industry. The automobile employees, prior to this recent increase in pay, got about $2.10 an hour, or 20 per cent more than the average. This latest wage boost will put them up to about $2.30 an hour, or about 31 per cent more than the average.

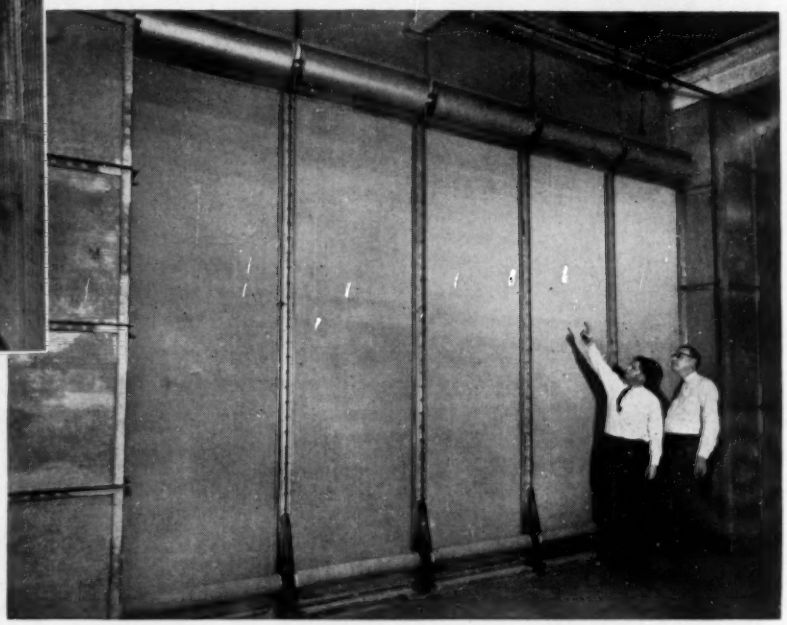
The labor cartel has not wrung these extra millions out of the automobile manufacturers, but will extort them from the people who buy automobiles. The manufacturer is simply the intermediary who collects the money from the general public and pays it to the favored workmen who possess the economic power to demand what they want from the public, and get it.

One of the most amazing things about these raids on the public is the placidity with which the public accepts them. This average workman who makes $1.75 an hour, and the millions of persons not employed in manufacturing and who make much less than

AAF FILTER TEAM CLEANS UP A *Dirty Story*

ABOVE: Final cleaning operations are handled by AAF ELECTRO-MATIC electronic precipitators, thus assuring the spinning room of *super-clean* air.

RIGHT: The front line against impurities in 86,000 cfm of outdoor and re-circulated air to the spinning room is held down by a bank of AUTO-AIRMAT filters. AUTO-AIRMATs on another system supply 60,000 cfm of clean air to the carding room.



Engineered and designed by J. E. SIRRINE & CO., Greenville, S. C.
Installed by THE BAHNSON COMPANY, Winston-Salem, N. C.

Johnston Manufacturing Eliminates Discoloration Losses with Auto-AIRMAT | *Electro*-MATIC Installation

YARN discoloration from dust and soot was costing Johnston Manufacturing Company, Charlotte, N. C., thousands of dollars yearly. Then AAF's No. 1 textile team, consisting of AUTO-AIRMAT and ELECTRO-MATIC filters, took over cleaning both intake and re-circulated air for the spinning room.

Result: during the first year of operation, *not one cent* has been lost due to discoloration.

Here's how these two filters complement each other in producing super-clean air. Lint and coarser dust particles are collected by the AUTO-AIRMAT. Then the ELECTRO-MATIC electronic precipitator adds the finishing touches with the removal of microscopic impurities and smoke. The maintenance story is just as good as the efficiency story—each unit cleans both the air *and itself* automatically!

For complete information on these two filters, call your local American Air Filter representative, or write direct for AUTO-AIRMAT Bulletin No. 234 and ELECTRO-MATIC Bulletin No. 250.

AAF herman nelson

American Air Filter
COMPANY, INC.

American Air Filter of Canada, Ltd., Montreal, P. Q. • 275 Central Avenue, Louisville 8, Kentucky

$1.75 an hour, are the ones who chiefly get soaked when the big, powerful labor unions can force manufacturers to collect more money for them from the public.

Since this figure of $1.75 for the average wage of people employed in manufacturing includes the earnings of the most highly paid employees, if we deduct the auto workers, steel workers, and other very highly paid people before determining the average for the rest of the earners in industry, the average would materially drop, and if it went down to $1.70, that would mean that the auto workers got 35 per cent more than the average, and if this figure dropped to $1.65, the auto workers would be getting just about 40 per cent more than the average of industrial workers not participating in these abnormally high wages. We don't have any accurate figures on the earnings of people not engaged in manufacturing, but these are almost certainly lower than those of the people employed in manufacturing plants.

It is difficult to see how any reasonable person could therefore deny that these very highly paid people who keep jacking their incomes up at the expense of the public, are grossly overpaid already, and if anybody in our economic system needs help it is not the people who have already helped themselves to more than they deserve, but the folks at, or near the bottom of the economic pile.

About the middle of June the head of a large union took cognizance of the plight of the millions of persons who have suffered through the activities of his organization, and proposed to help them by organizing them into a union. This certainly raises an interesting question. Who will take what from whom?

Two or three million people, tightly organized into labor cartels controlling certain major industries, can flourish mightily at the expense of about 60 million other working people, but any large groups of wage earners whose wage rates get much above the average have got to take what they get from somebody else, and the proposal is to accelerate the normal chain reaction of inflation.

The labor unions are, of course, and have been, devoted to the economic theory that perpetual inflation is the road to prosperity, and in the big unions with monopolistic control of industry, this economic theory has been put into practice with marked success. Every year, wages are raised, pensions are increased, fringe benefits of one expensive sort or another are put into effect, and of course the cost of what the benefited people get is passed on to the purchaser of what they make. Any racket like this has got to have something to prey on. You can't take everybody into it. There must necessarily be victims.

In any competitive economy, it is virtually impossible for any one group of employed people to raise their wages very much above the average. No matter what the average may be, no rational employer is likely to willingly pay a person 30 to 40 per cent more than that average without getting something in return, and so competition keeps prices under control. However, one of the basic tenets of labor unionism is that wages should not be determined by competition; yet, competition is the only possible fair way of getting at the price of anything.

A monopolist is no judge of a fair price, because to be fair, every price must necessarily be fair to the buyer and the seller. These two never have the same ideas about what is fair, and the only basis on which their ideas can meet is the basis of competition. The big labor unions have completely eliminated this consideration in determining wage prices. They prefer to determine wages on the same basis the robber barons of Europe used to determine shipping tolls on the Rhine.

The stronger the labor unions get, the more rapidly inflation will spread, because inflation operates as a chain reaction. Raising wages raises the prices of goods and services, and the people who have to pay the increased prices immediately demand more money with which to pay them. This sets up not only a vicious circle, but one which is self-perpetuating.

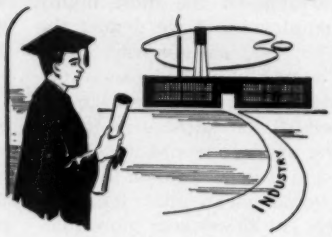
The only economic remedy for such vicious practices is denied when the national government undertakes to prop up at public expense any sector of the economy suffering from these inflationary practices. The natural economic remedy for exorbitant pay scales in an industry is the refusal of great masses of people to buy the unreasonably priced products of that industry. If the national government is going to try to guarantee that everybody has enough money to buy what he thinks he needs, regardless of what it costs, there is no hope of checking the progress of inflation. The national government seems bent on doing this very thing, and the present evidence of its intention is manifested in the minimum wage law. As we pointed out when the first minimum wage law was passed about 20 years ago, the power to set minimum wages is the power to set all wages, and when the minimum wage is raised, then all wages must be raised, because there are natural differentials between different types of labor.

If the common laborer gets 75 cents an hour, then a semi-skilled workman making $1.25 an hour may be content, but if the laborer is raised to $1.25, the semi-skilled workman must be raised to maintain a reasonable differential, and then the more skillful worker must be raised to maintain *his* differential, and so on up the line.

When the first minimum wage law was passed, setting 25 cents an hour as the minimum, we suggested that if wages were to be determined by politician instead of competition, it would only be a relatively short time until the 25-cent minimum would be a dollar, and if inflation was what we needed to end the depression, we might as well start off right away with a minimum wage of a dollar instead of inching this minimum up hypocritically by degrees.

The moment politics replaces economics in determining prices, a chain reaction has been set in motion which is unstoppable until the laws of economics are permitted to re-assert themselves.

CONGRATULATIONS, GRADUATES!



BEGINNING on this page and continuing on pages 119 and 121 are the names of those who this year were graduated from textile schools at Alabama Polytechnic Institute, Bradford Durfee Technical Institute, Clemson College, Fairleigh Dickinson College, Georgia Institute of Technology, Institute of Textile Technology, Lowell Technological Institute, North Carolina State College, New Bedford Institute of Textiles and Technology, Philadelphia Textile Institute, Rhode Island School of Design, Texas Technological College, and the two Canadian schools—Ecole des Textiles de Saint-Hyacinthe and The Provincial Institute of Textiles.

Firms by which they have been employed appear immediately after the graduates' names if known at the time the information was compiled by the schools. Again this year a large number were required to go into the armed forces and this is indicated by the word "Military" following a name.

Congratulations to all of you who have chosen the textile manufacturing and associated industries for your life's work.

Our wish for all of you is much success and happiness.

For those going into the armed forces we also wish an early and safe return.—The Editors.

ALABAMA POLYTECHNIC INSTITUTE (Auburn)

Delmas E. Bailey, Military
T. Herschel Bailey, Avondale Mills
Billy Frank Benton, Chemstrand Corp.
Arthur Boyanton, Jr., Redstone Arsenal
S. A. M. Jafri, Deering-Milliken Research Trust
Otis Lee Landers, Borden Mills
Bureon E. Ledbetter, Tallassee Mills
Norman S. McClellan, Callaway Mills Co.
Bob E. Nagel, Military
Conrad Joseph Ourso, Lane Cotton Mills
M. Donovan Paulk, Military
William Henry Shapard, American Throwing Co.
George Wright, Military

BRADFORD DURFEE TECHNICAL INSTITUTE

Gerald A. Berube, H. Warshaw & Sons, Inc.
Raymond J. Comtois, Military
Dean M. Crook, Crompton-Shenandoah Co.
Reginald R. Dion, graduate school, Northeastern University
James A. Doucet
Robert A. Emmett, Bell Aircraft Corp.
Janet Gault, Graduate School, University of Chicago
Donald W. Halford, Graduate School, University of Chicago
David C. Hathaway
Lawrence A. Hathaway, Jr., Glenn Martin Co.
Robert B. Keigher
Francis B. McAndrew, Military
Frederick B. McDonald, Military
Edward F. Mello, fellowship, Institute of Textile Technology
John F. J. Nicoletti
Herman Rosenberg, graduate school, Lowell Technological Institute
Alphonse R. Ross, Dominion Textile Co., Ltd.
Richard L. Scott
Elizabeth V. Shaw, Wamsutta Mills
Edward F. Shea
Edward Stone, graduate school, University of Maryland
Stephen S. Trond, Military
Alvan P. White, Besse-Russell Co.

CLEMSON

Benjamin H. Bell, Burlington Mills
William H. Elam, Riegel Textile Corp., Trion Div.
William C. Howard
John H. Howell
Joe F. Mattison, Institute of Textile Technology
Richard L. Neely, Military
William O. Stone, Jr., Institute of Textile Technology
Samuel G. Thompson, Graduate School, Clemson College.
Robert M. Ashmore, Judson Mills
William T. Bowen, J. E. Sirrine Co.
Joseph R. Clelan, American Viscose Corp.
Clarence W. Davis, Military
Ray H. Fowler, Western Electric Co., Inc.
Robert C. Grant, Military
Claude A. Graves, Jr., Military
Andrel K. Helms, Institute of Textile Technology
Allston T. Mitchell, Carnegie Tech.
Douglas D. Padgette, Western Electric Co., Inc.
Maung Khin Si, Gov't. Cotton Spinning & Weaving Factory, Burma
Jack R. Tatham, Military
Huston E. Thompson
James C. Bass, Jr., U. S. Rubber Co.
Earl D. Berry, Military
Roy O. Coker, Jr.
Walter R. Coker, Military
Gerald B. Cooper
Leon A. Cooper, Jr., Master Cleaners Inc.
Garland W. Duvall, Celanese Corp. of America
Charles H. Ferguson, Monarch Mills
Ben R. Fox, Institute of Textile Tech.
Roger O. Gaines, Liberty Mills
Joe D. Garner, Limestone Mfg. Co.
David R. Gentry, Institute of Textile Technology
Hamlin J. Gleaton, Burlington Mills
William M. Golden, Fulton Bag & Cotton Mills
Walter D. Gunnell, Jr., Jantzen Inc.
Ellis J. Gunter
Edward B. Hammond, Wellman Combing Co.
William F. Harper, Burlington Mills
Donald L. Harrison
Robert M. Harrison

Clemson continued

Kenneth R. Hart, North American Rayon Corp.
Alfred D. Hellams, Military
Billy E. Hodgin, Avondale Mills
Fred H. Hope, Military
William A. Key, Bath (S. C.) Mills
Lacy W. King, Jr., Military
Thomas B. Lee, Gaffney Mfg. Co.
Thomas G. Livingston
John M. Lunsford, Military
Robert S. Mabry
Eddie T. Madden, Clearwater (S. C.) Finishing Plant
John J. Mikell, Military
Robert T. Mooneyhan, Military
Marlyn D. Morgan, Gaffney Mfg. Co.
Preston C. Opt, Military
Joel D. Pate, Burlington Mills
Randolph O. Potts, Military
Donald H. Ross
David H. Seagraves, Chicopee Mfg. Corp.
Clarke R. Starnes, Hatch Mill Corp.
John A. Templeton
Judge R. Thornton, White Horse Mill
Joseph K. Tinsley, Military
Lawrence A. White, Military
Richard E. Whitlock, Military
Richard A. Whitten, Celanese Corp.
James T. Wilkerson
William E. Worthy, United Merchants & Manufacturers, Inc.
Charles N. Wyatt, Jr.

FAIRLEIGH DICKINSON COLLEGE

Vincent Bonavita
Carmen Cornetto
Marvin Eichenblatt
Richard Kimble
Antanas Masionis
Nicholas Trocolar

GEORGIA INSTITUTE OF TECHNOLOGY (Georgia Tech)

Raymond G. Anderson, Military
Manuel Enrique Arsuaga
Nathaniel S. Clark, Scapa Dryers, Inc.
Joel Fineman Cohen
Joseph Deleno Creveling

everything you need in

Acetate Blacks.....

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Amacel Black JRW

Excellent dispersion and solubility. **Leaves rayon white.**

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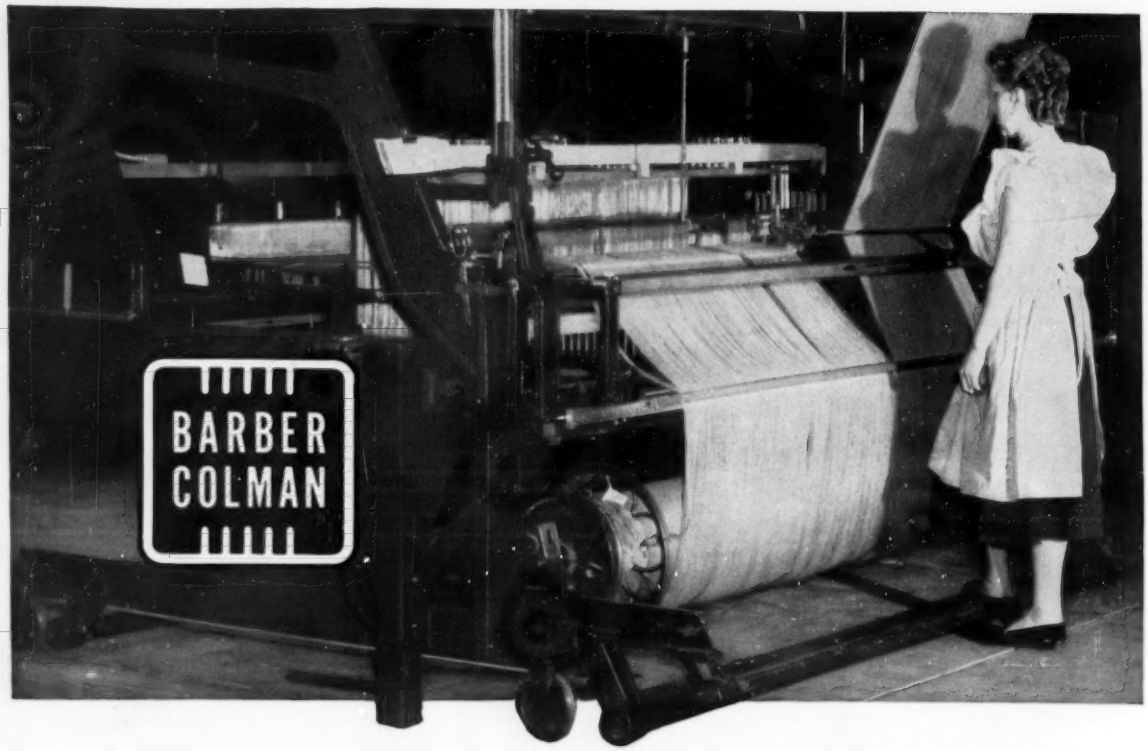

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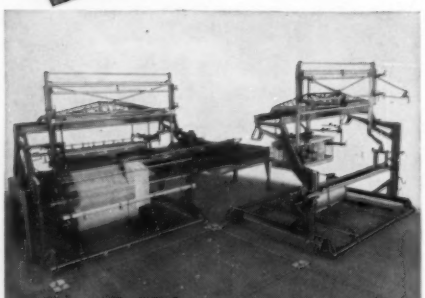

On a Barber-Colman Warp Drawing Machine, at each stroke of the needle a thread is drawn through the correct selection of drop wire, heddle, and reed dent. This correct selection is made accurately and automatically for each pick by a sequence of mechanical motions controlled by a pattern strip punched in accordance with the designer's draft. Users of the machine are enthusiastic, saying such things as "pays for itself in two years", "gets samples on the loom quickly", "high sley satin warps drawn in 5½ hours instead of 48 hours", "makes style changes rapidly", "saving more than $22 per warp", and the like. Let your Barber-Colman representative look into *your* situation — perhaps he can suggest an installation that could increase production, improve the products, and lower costs.

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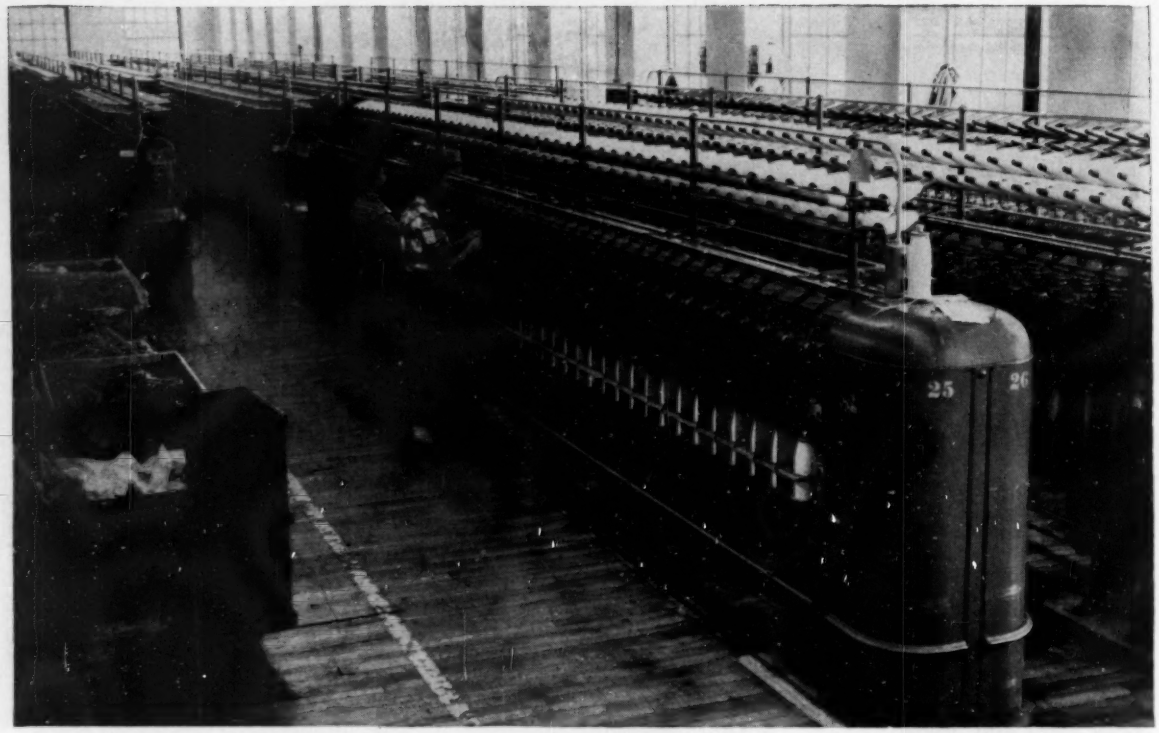

A Quality-Boosting Installation. In the Thornton, R. I. mill of the Walter Marshall Spinning Corporation of Rhode Island, these Leesona Model 10 Ring Twisters have brought improved yarn quality and production efficiency. So much so that this mill is engaged in 100% replacement of twisting equipment with Model 10's.

Worsted Yarn Mill Boosts Quality

Walter Marshall Spinning Corporation tops its own high quality standards, realizes new economies with Leesona Model 10 Ring Twister

For improved Worsted Yarn Twisting, the Walter Marshall Spinning Corporation installed Leesona Model 10 Ring Twisters as part of a modernization program. The resulting benefits were immediate and outstanding. Here is what the management at the Walter Marshall Mill has to say:

"Primarily, we were interested in getting highest possible yarn quality when we replaced our obsolete equipment with Leesona Model 10 Ring Twisters. We got that top quality in full measure.

"Such features as automatic stop motion, free delivery, constant yarn speed delivered by accurate feed rolls and tensioning are real quality boosters. So is the endless belt drive, which produces even yarn on all spindles."

In your own operations

modernizing with Leesona twisting or winding machines is the logical way to make your machine replacement be a real time and money saver, while improving quality. For further facts on the Model 10 Ring Twister, or on any other Leesona machine, see your Universal representative.

23.4.9

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9% More Man-Made Fiber Produced in '54

The annual "Textile Organon" survey of world production of man-made fiber reveals that in 1954, global output aggregated 4,983,000,000 pounds, an increase of 9% compared to 1953 and a new world record. The 1954 output was composed of 4,045,000,000 pounds of rayon, 462,000,000 pounds of acetate, and 476,000,000 pounds of non-cellulosic fibers.

Man-made fibers in 1954 comprised 20% of total fiber production compared with 19% in the previous year.

Production, however, stood well below global capacity for the output of the man-made fibers, according to the "Organon."

World output of non-cellulosic fibers during 1954 increased 23% over the previous year and established a new record for the category.

By the end of 1956, projected capacity of the non-cellulosic fibers is estimated at 900,600,000 pounds or a gain of 89% over 1954 production. The overall gain will consist of 238,000,000 pounds additional facilities in the United States for an increase of 69%, and 185,700,000 pounds for all other countries.

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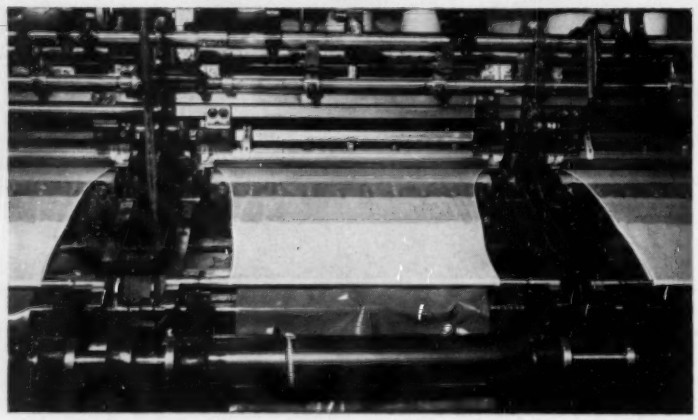
Knitting

fully proportioned



FULL SPAN AT KNITTING HEAD starts Tall Full designation on Kalio knitting machine (above). This pattern has two flare narrowings.

SEAMERS WAGES ARE ADJUSTED in accordance with length and size of stockings handled (below).

Staff Prepared

EXCLUSIVE

MORGANTON Full Fashioned Hosiery Co., Morganton, N. C., initiated a program to fully proportion women's nylon stockings several years ago. This mill group has progressively developed the fully proportioned technique to provide "tailored" stockings for individuals of different stature and leg dimensions. The Flatternit brand produced by Morganton has achieved a notable degree of customer satisfaction by adoption of knitting and processing procedures based on carefully established standards.

Three-Dimension Fit. Here's how it's done: The fully proportioned fit calls for different size stockings in the knitting process in terms of volume, length, foot size, and location and number of narrowings. These stockings are boarded on forms of appropriate sizes to match the knitted dimensions.

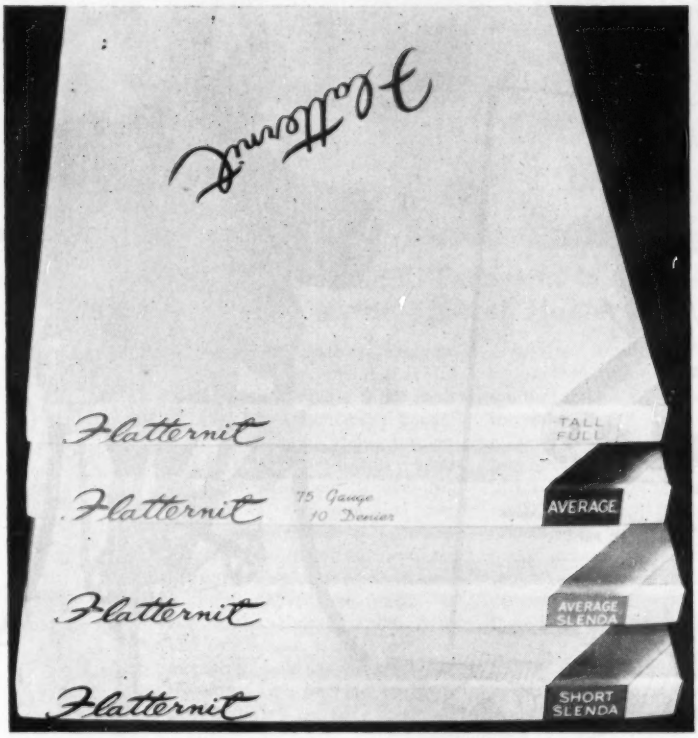
The stockings are knitted narrower for "short slender" than for the "average;" the "tall slender" sizes are knitted to different dimensions, etc. The "average" sizes have fewer narrowings than a "tall full," for example. In other words, the stockings are fully tailored.

Research. The full proportion dimensions were derived and established after considerable experimentation, trials, and records which were kept upon surveying retail outlet needs and results of trials on models. First-hand information was obtained by having live models try the different sizes and dimensions until satisfactory optimums were obtained in four categories. (See accompanying table and forms.)

The Flatternit brand line includes 10-denier to 30-denier yarn in 51 gauge, 60 gauge, 66 gauge, and 75 gauge. The "tall full"

manufacturing data on tailored-to-fit stockings

f-f hosiery



LABELED BOXES provide quick identification for packing as well as easy selection in the sales room.

"LEG PATTERNS" AID SELLING. These are full size paper reproductions of flat stockings. Color code matches boxes.

standard starts with a full span at the head on the Kalio knitting machines and has two flare narrowings. The "average" has 12 flare narrowings in 60 gauge on a 580-needle span (full head) to start; "short slender" starts with 36 needles less.

Three Carriers Help. Loose courses in the welt on "tall full" allow more stretch at this point. Three-carrier knitting helps to provide a stable structure in the stockings by permitting the use of three yarns in the leg; two threads of left twist, and one thread of right twist.

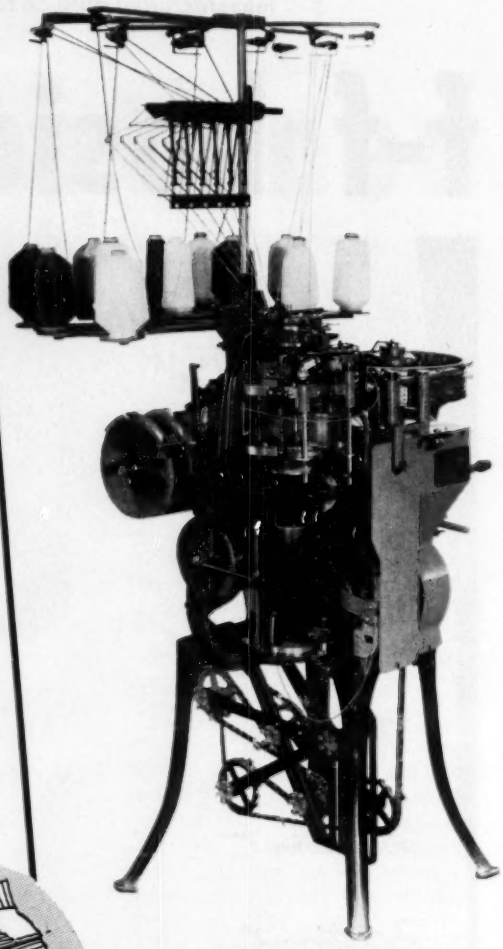
Wage rates were adjusted in accordance with the length and

FLATTERNIT MEASURED-TO-FIT HOSIERY LENGTH CHART

Size	Short Slenda	Average	Slenda	Tall Full
8	27-S 28-M 29-L			
8½	27-S 28-M 29-L	28-S 29-M 30-L		
9	27-S 28-M 29-L	29-S 30-M 31-L	29-S 30-M 31-L	
9½	28-S 29-M 30-L	30-S 31-M 32-L	30-S 31-M 32-L	33-S 34-M 35-L
10	28-S 29-M 30-L	31-S 32-M 33-L	31-S 32-M 33-L	33-S 34-M 35-L
10½		31-S 32-M 33-L	31-S 32-M 33-L	33½-S 34½-M 35½-L
11		32-S 33M 34-L		33½-S 34½-M 35½-L

The CRAWFORD ARGYLE ATTACHMENT for SPIRAL MACHINES

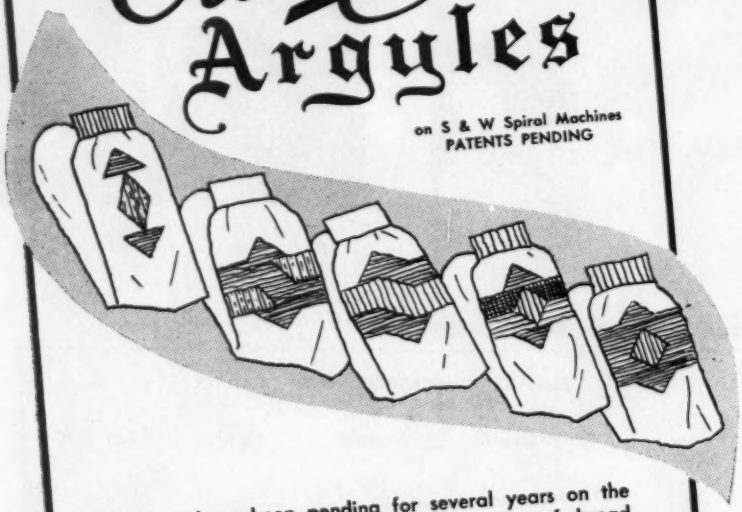
now being installed by leading mills that are looking to the future!



The ONE and ONLY attachment that produces

GENUINE *Crawford* Argyles

on S & W Spiral Machines
PATENTS PENDING



Patents have been pending for several years on the Crawford Argyle Knitter. Several claims of broad coverage have been declared as allowable. These patents should be granted soon and as the Crawford Argyle Knitter and Spiral Attachment are so revolutionary and contain so many exclusive argyle production features, we will take legal steps to protect our rights. Present machine owners report finest operation with highest percentage of first quality. We would be happy to discuss an installation in your mill.

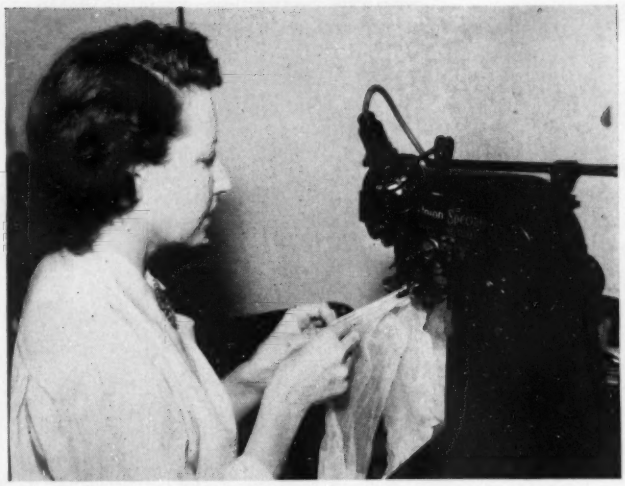
One of the many advantages of the Crawford Argyle attachment is that it can be applied to a 3 ¾", 3 ½" or 3 ¼" spiral machine. This makes possible the economical and profitable production of a full range of sizes in men's and boys' argyle hosiery, as well as knee high argyle socks for all age groups.

H. E. CRAWFORD COMPANY
INCORPORATED
KERNERSVILLE, NORTH CAROLINA
Phone 2331
Hosiery Machine Specialists Since 1930

MEXICO—Mr. Hilary J. Kolski, Hikol, S.A.
San Juan de Letran 100-604, Mexico 1, D.F.

EUROPE-BELGIAN CONGO—Ameropa Trading & Shipping Co., Inc.
37 West 57th Street, New York 19, N.Y.

CHINA-JAPAN-FAR EAST—G. R. Coleman & Company, Inc.
50 Church Street, New York 7, N.Y.



"Light Touch" Essential in Seaming Nylon Stretch Hosiery

When technical representatives of Union Special Machine Co. visited knitting mills making stretch type hosiery knitted from high-twist monofilament nylon in an effort to solve problems encountered in seaming, they found that operator handling was probably the greatest single contributing factor to the drop in production. Operators found it difficult to match the heel and the shadow welt with the result that almost constant checking was necessary. This checking in itself led to lower production.

Other problems discovered were wavy seams due to excessive stretching of the stocking before seaming, feed cup cuts necessitating mending, and loss of time in cutting the chain, due to the removal of the pulling attachment to which the chain cutting knife was attached.

As to handling, operators found that just a slight tension on the stocking, or a tendency to "hold back" caused a mismatch. It was learned also that the mills making the most progress in solving their problems were those in which emphasis and concentration had been placed on the "light touch" and where operators had adapted themselves to this new technique of handling. According to Union Special, this cannot be emphasized too much in helping the operator to help himself.

In addition, there are some machine adjustments, coupled with modification in certain parts, that have been found useful.

Parts consisting of lighter springs for feed cup pressure, uncurler boot pressure, and puller plate pressure have been developed.

It is recommended that the center section of the uncurler be altered by removing stock from the center section of the uncurler to within 1/32" of uncurling boot edge.

Other suggestions contained in a bulletin on this subject which was recently issued by and is available from Union Special are:

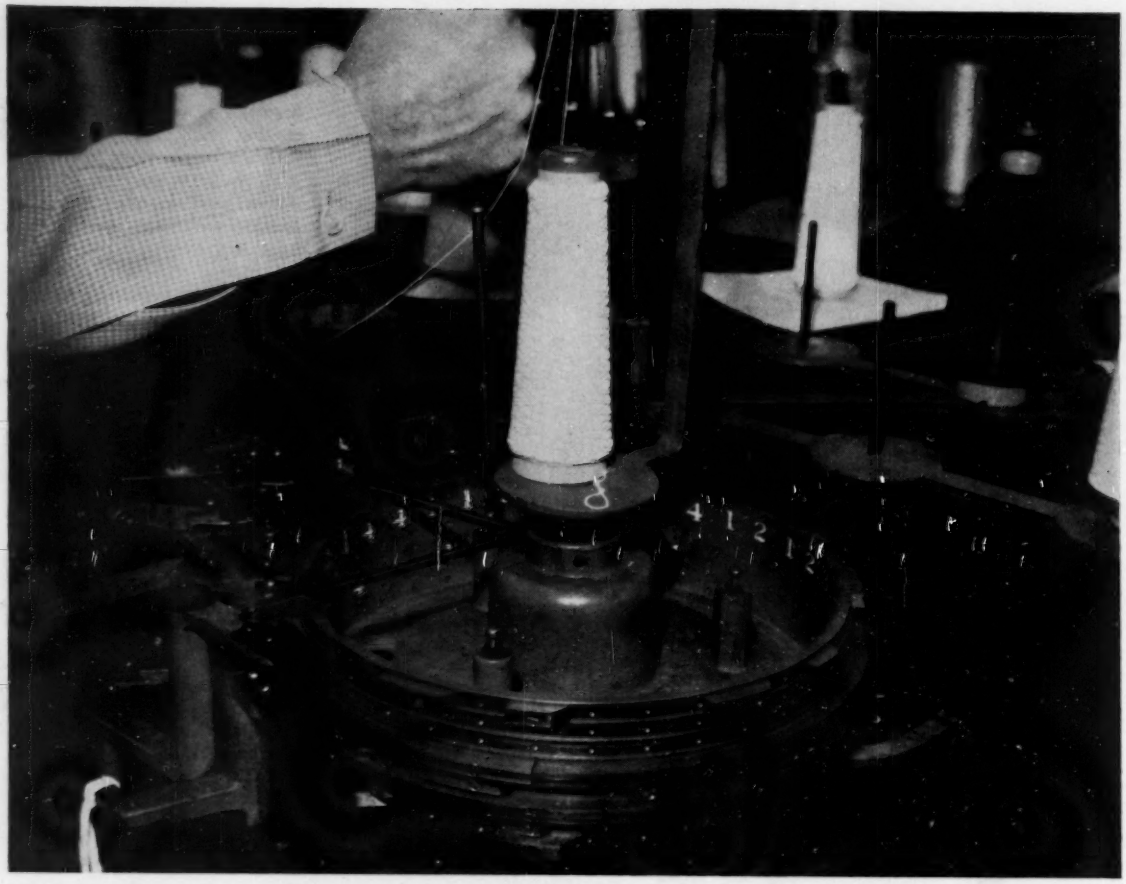
1. Same fittings (adjusting parts) can be used in most instances as are normally used in seaming conventional hosiery.
2. If rubber-faced feed cups are used, less pressure is required; some mills say a more uniform feeding condition is obtained with these.
3. Another variation in sewing parts is use of step blocks (stitch tongue support and stationary needle guard) in place of the standard block. Set standard blocks so that there is more opening between them than when seaming conventional hosiery; opening between step blocks can be less than if standard blocks are used.
4. Use stitch tongue 41397 A (marked DE).
5. Most mills use K 8 nylon in needle and K 6 nylon in loopers. Some use 30/2 Helanca yarn in loopers with K 8 or K 6 nylon in needle. A few use Helanca for all three seaming threads.
6. Most mills use four turns of thread on thread ratio control wheel. Some use unequal turns such as four on looper thread rollers and three on needle thread rollers.
7. Slight variation in seam elasticity can be obtained by positioning of stitch tongue.
8. Number of stitches is usually set at 15 on a card or piece of paper.

size of stockings handled or knitted by the operatives. In other words, a knitter making large stockings is paid a higher piece rate to account for slightly lower production. Seamers are also paid rates commensurate with the sizes being processed, thereby providing an equitable wage plan.

Many mills determine final proportion of stockings entirely in the boarding operation. This system makes the stocking fit the form it is boarded on; however, the fit may be tight or loose, depending upon original knitted dimensions and stitch tension, according to management at Morganton.

Selling Aid. An aid to selling is referred to as "leg patterns." This aid is actually a full size paper reproduction of the flat stockings in each size (see accompanying illustration). The paper reproductions show actual placement of narrowings and reinforcements, and give an at-a-glance explanation of the important differences in width and length for each type.

Each pattern shows a sketch of the type of leg for which it is intended, with the size range. To tie them in with the box identification, each pattern is printed in colors to match the box stripes: red for Short Slenda; gray for Average Slenda; blue for Average; and pink for Tall Full.



Here's how you can make

better quality stretch argyles

Staff Prepared
EXCLUSIVE

LIGHT OIL applied daily to all small moving parts around the cylinder mechanism on Crawford Model MA2 short cylinder knitters helps eliminate a large part of stops caused by parts sticking or gumming up, according to experience at Midway Hosiery Mills, Inc., Hickory, N. C. This mill has had considerable experience producing argyle patterns of stretch yarn on these machines.

Drop stitches around tops may be kept to a minimum by making the first four courses of the top (including rubber and yarn) with cylinders set about two screw threads higher (about 1/16″) than the usual setting for the rest of the top. This change puts the needles higher up in the latch ring (or yarn carrier ring) and assures better operation in

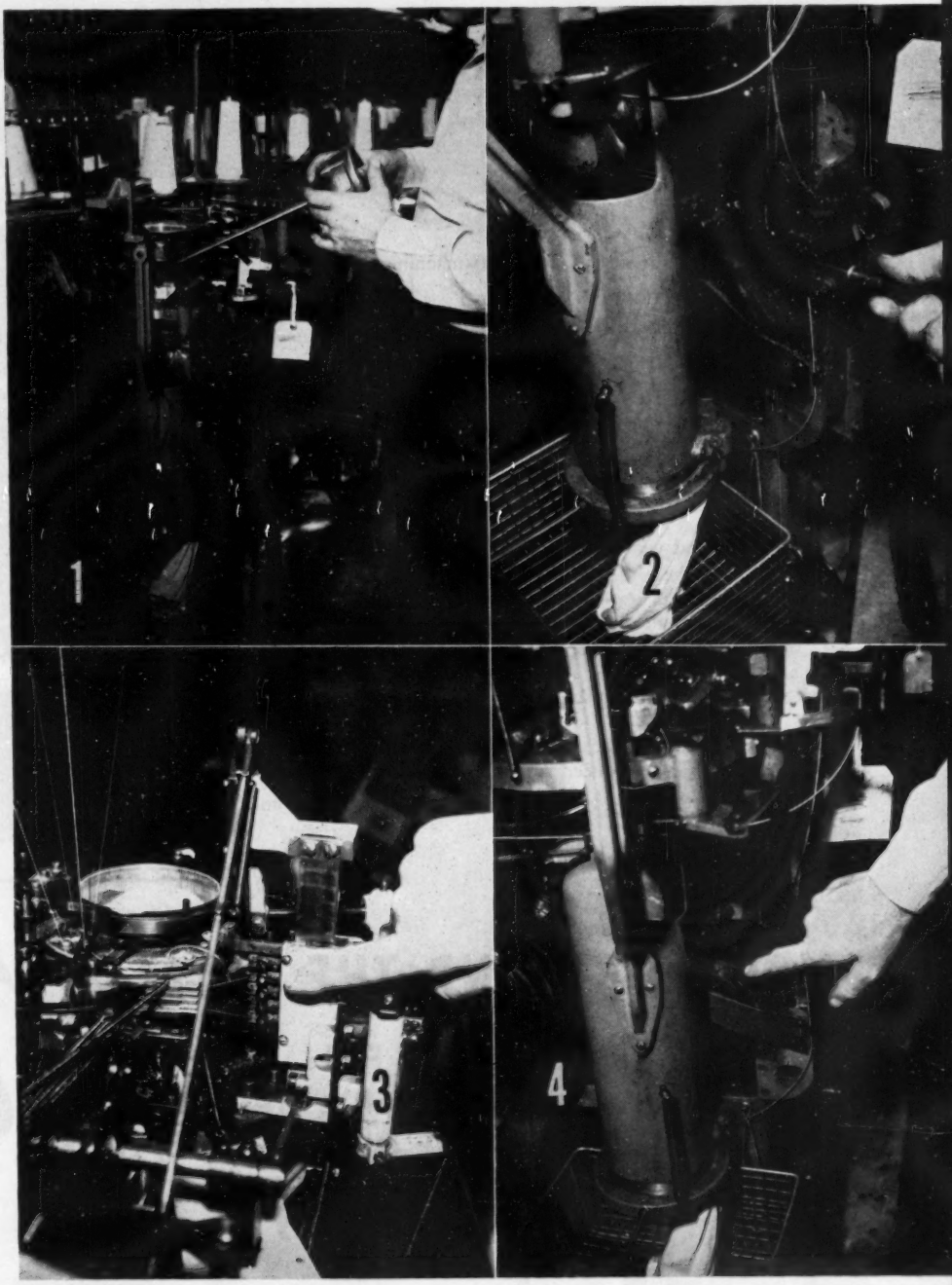
MAINTAIN correct brake drum friction by adjusting screws to prevent drum from moving too far by inertia.

1. Light oil daily around cylinder mechanism minimizes stops caused by parts sticking or gumming up.

2. For first four courses of top, set cylinders two screw threads higher than usual setting for remainder of top, to minimize drop stitches.

3. Hone yarn clamps and set to hold yarn securely, particularly on fine nylon or light counts.

4. Weekly, check cams and pawls that rack drums, to determine correct movement.



making the tops.

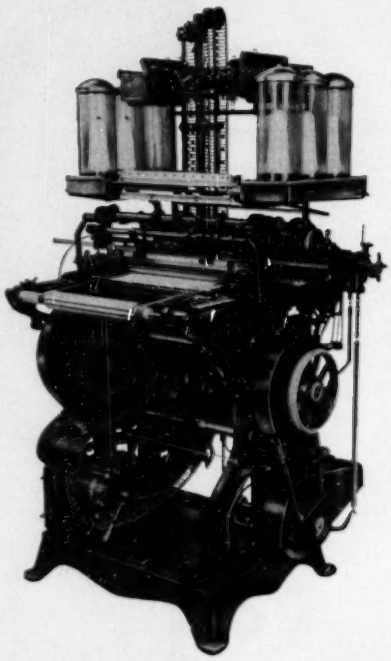
Yarn clamps are small and must be honed and set precisely to hold the yarn properly and securely. This is particularly true on light counts or fine nylon yarn.

Cams and pawls that rack the drums should be checked once each week to be sure the drums move the right distance in relation to the knitting cylinder. This setting would vary, depending upon cam wear, wear on racking pawls, and drum movement. A weekly check at these points can save many jammed needles, cylinders, and resultant down time.

Enough friction must be maintained on the drum brake to prevent jerky movement. The friction is adjusted by the screw which rests against a spring on a fiber plug. Friction must be sufficient to prevent the pawl from pushing the drum too far (by inertia) on each move. This adjustment must be made by feel and judgment of the fixer and is considered essential in minimizing operational difficulties.

ADD UP THESE GOOD POINTS—

- One operator can attend 24 to 30 machines — producing the maximum per eight hours.
- Each machine completely assembled and adjusted at factory.
- Being single section, no production time is lost due to idle sections.
- Narrowing and widening changes are completely automatic.
- No maladjustment due to temperature changes.
- Needle breakage is unusually low.
- The sheer hosiery produced is tightly knit with high elasticity — longer wearing — beautiful to see, lovely to touch *and easy to sell!*



AND YOU'LL FIND THE TOTAL IS 75

THE FULL FASHIONED HOSIERY MACHINE FOR THE HIGH-GAUGE, HIGH-PROFIT MARKET . . . BY

WILDMAN *makes the machines that tend to their own knitting.*

WILDMAN MFG. COMPANY, NORRISTOWN, PA.

MANUFACTURERS OF: FULL FASHIONED HOSIERY MACHINES; CIRCULAR MACHINES FOR OUTERWEAR, UNDERWEAR, SPORTSWEAR, TRIMMINGS; STOP MOTIONS

They built a machine to

Speed Tricot Inspection

Staff Prepared
EXCLUSIVE

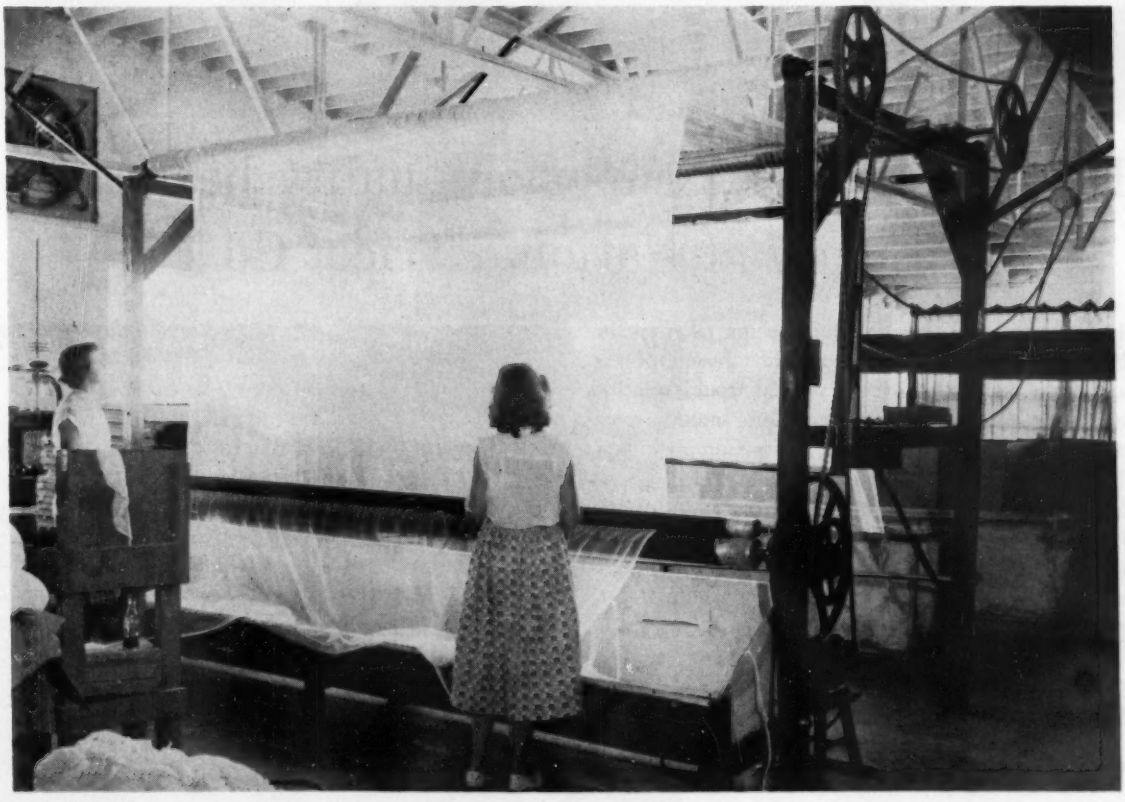
FORMERLY an upright black board was used as a background upon which to inspect tricot tulle and jersey at Stylewise Mills, Inc., Carrollton, Ga. The operatives pulled the goods over the upright black board manually. Three operatives each took six hours to examine the fabric produced each day.

W. A. Argo, general manager at this plant, thought this job was consuming too much time; therefore an inspection machine was designed and built to handle the fabric continuously. Four to five months elapsed before the machine was fully developed to operate continuously and without interruption. As a direct result of this development, two operatives now examine each day's production in two hours, thereby saving 12 man-hours.

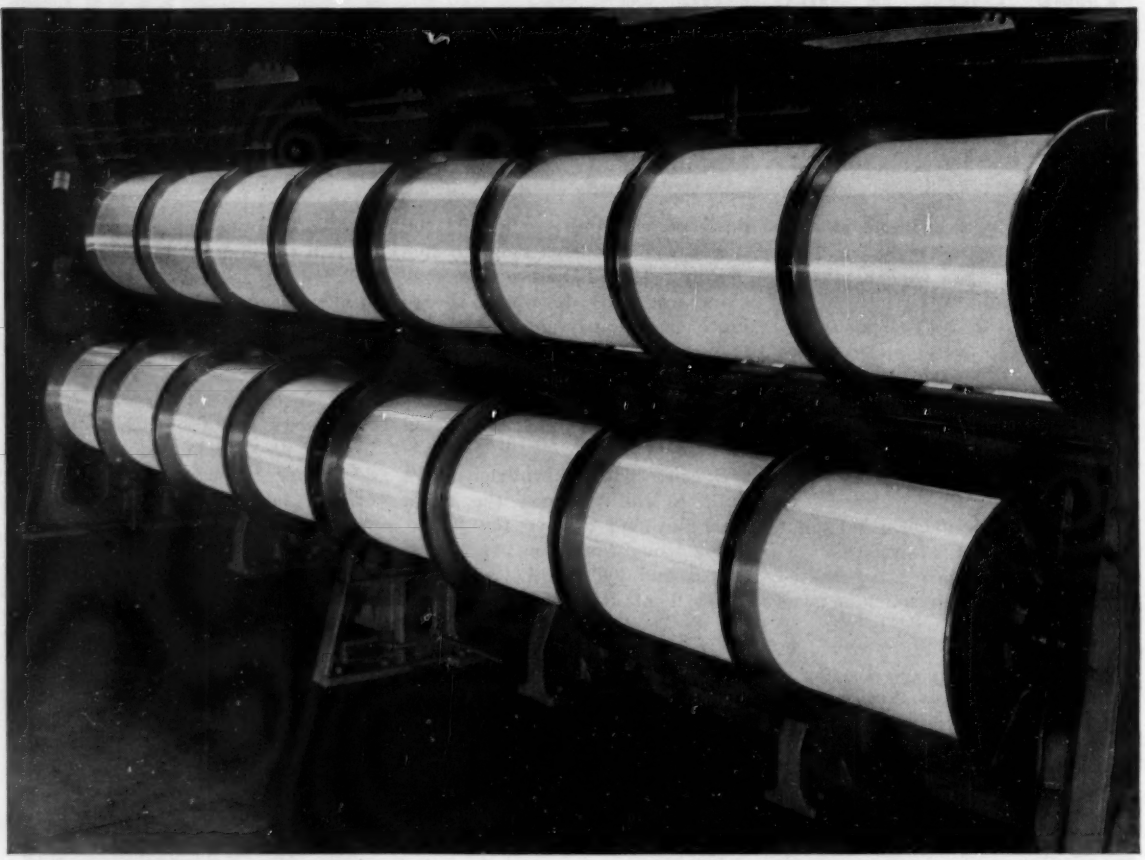
Special fabric troughs were built to roll between the tricot machines and receive the fabric. These troughs measure 14 feet in length and 24" wide, the length of each of the tricot machines. The ends of one piece of goods are tied to the ends of the next piece of goods so the fabric is fed continuously through the inspection machine. Here the trough is placed behind the inspection machine and the fabric is threaded over two top rolls, then down in front of nine fluorescent fixtures, each containing two 40-watt lamps. A piece of 40 denier fabric placed in front of the lamps reduces glare.

The fabric is pulled over the machine by two flannel covered rolls located at waist level and at the front of the machine. The

FABRIC IS THREADED over two top rolls, then down in front of nine fluorescent fixtures, each containing two 40-watt lamps. The fabric is pulled over the machine by two flannel covered rolls located at waist level and at the front of the machine.



Better beams mean finer fabrics!



Here's how these superior quality beams are warped at National Tricot Co.!

This unretouched photo of warp beams, taken at the National Tricot Co. in Clifton, New Jersey, proves without a doubt that even a yarn as troublesome as unthrown nylon can be warped into smooth, even beams — with the aid of Kidde Warp Compensators! Take it from the owner of National Tricot Co. — Mr. Herbert M. Aibel. Since installing Kidde Warp Compensators, he reports:

Beams are now smooth, with no more loose or tight ends!

The warp sheet remains taut at all times—even when the warper is stopped: Result — no more tangles!

Higher speed warping is now possible, with even less down time than before!

Kidde Warp Compensator

Tricot machines now operate more efficiently, and overall appearance of finished product has been improved.

These results are *not* unusual. More than 500 leading textile mills throughout the nation now use Kidde Compensators of one kind or another to produce a far better product at lower cost. Find out more about Kidde Compensators — write Kidde today!

Kidde (K Kidde)

The word 'Kidde' and the Kidde seal are trademarks of Walter Kidde & Company, Inc.

Walter Kidde & Company, Inc., 890 Main Street, Belleville 9, New Jersey

Future Brighter for Hosiery Industry

Both the short and long range outlook for the hosiery industry is better than it has been for several years, according to W. F. Williamson, president of the National Association of Hosiery Manufacturers. The problem of overproduction has been brought under control, the market is expanding, and an unprecedented effort is underway to widen public interest in the product of the industry.

The association has made its "Hosiery Statistics 1954" compilation available in booklet form; it may be secured from the offices of the association, 468 Fourth Ave., New York 16, N. Y.

Points of interest from the compilation, in addition to complete statistical information, are:

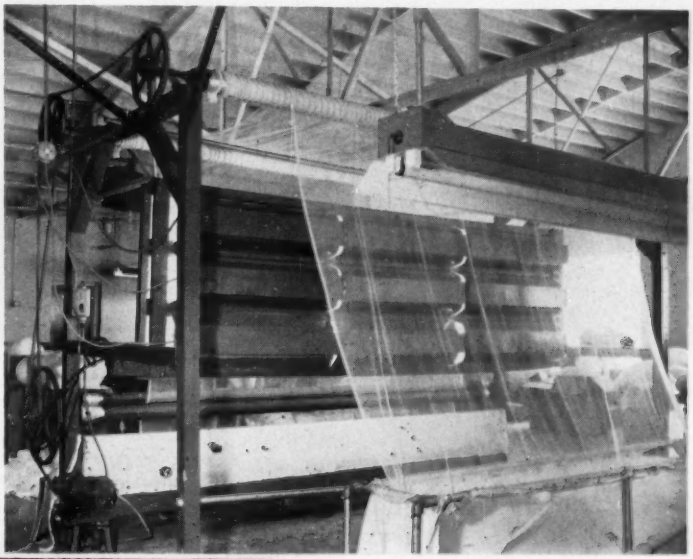
The industry now uses an increased amount of stretch yarns in all categories. Hosiery production of all types in 1954 reached 152 million dozen pairs, which is 4.4% under the 1953 total.

Number of plants operating showed a net reduction of 46 last year, of which 32 were full-fashioned and 14 were seamless. At the end of 1954 the number of full-fashioned plants was 730, seamless 599. Average number of employees was 75 for full-fashioned and 104 for seamless.

Of the total amount of hosiery produced (seamless and full-fashioned), 78.9% was made in the South and 21.1% in the remainder of the country. North Carolina was the largest producer of both types of hosiery.

Exports of all types of hosiery in 1954 amounted to about 5½ million dozen pairs, a decline of 4% from 1953. Largest users of American hosiery were Switzerland, Philippines, Union of South Africa and Canada.

two top rolls are also driven, and power is supplied by a ½ hp gearhead electric motor. The top rolls are driven in a direction opposite from the travel of the fabric, and ropes are wound around these rolls in opposite direction starting from the center. This arrangement keeps the fabric under the desired tension and spread out for easy inspection. The inspection machine is usually operated at approximately 17 yards per minute.



TOP ROLLS ARE DRIVEN in a direction opposite from the travel of the fabric, and ropes are wound around these rolls in opposite directions starting from center. This keeps necessary tension on fabric. Power is supplied by a ½ hp gearhead motor.

After inspection, the fabric is removed from the trough and folded for packing, thus relieving a trough for another load at the same place in front of the inspection machine.

TROUGHS WERE BUILT to roll between the tricot machines and receive the fabric. Troughs measure 14' in length by 24" wide, the length of each of the tricot machines.

How much does "NO PARTS INVENTORY" Cost?

IN TIME
IN LOST PRODUCTION
IN WASTED LABOR COST
IN DELAYED SHIPMENTS TO YOUR CUSTOMER
IN EFFICIENCY
IN PROFITS

INVESTING IN A PARTS INVENTORY DOES NOT TIE UP CAPITAL IDLY. In fact, the cost of purchasing and storing a part is minor when compared to the cost of lost production when a part is not available directly from your parts stockroom.

A specialized Saco-Lowell engineer, covering only replacement parts, is now assigned to your mill. His primary function is to service you in this vital phase of your operation. Backed by our entire organization, he will see to it that your technical problems are answered — that your inventory of guaranteed, genuine Saco-Lowell replacement parts is maintained in line with your requirements.

IT *PAYS* TO USE GENUINE SACO-LOWELL *REPAIR PARTS*
THEY'RE GUARANTEED

SACO-LOWELL
60 BATTERYMARCH STREET, BOSTON 10, MASS.
Shops at BIDDEFORD *and* SACO, MAINE, *and* SANFORD, N. C.
SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA

HOW OTHER MEN MANAGE

• Letters to Editor • Technical Discussion •
• Manufacturing Briefs • Kinks & Short Cuts • Comments from Readers •

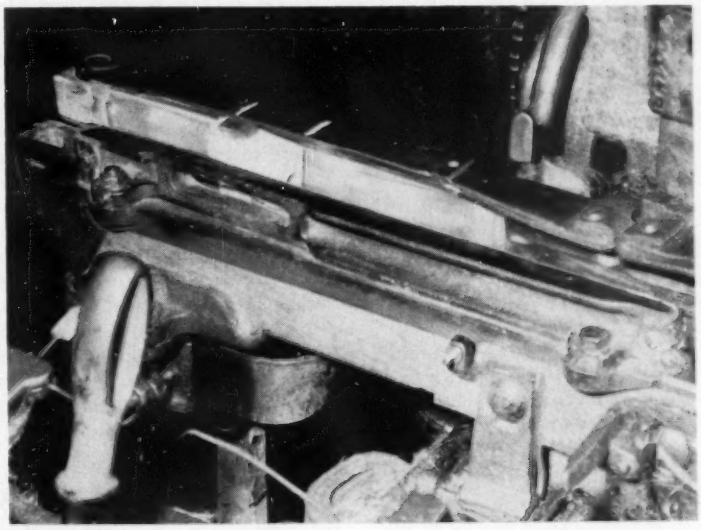
Try This Easy Way for Quick and Accurate Adjustment of Picker Stick Sweep

EDITOR TEXTILE INDUSTRIES:

Of all the maladjustments a fixer may make, none leads to so much unnecessary wear and tear and poor quality weaving as too much sweep on the picker stick.

Lug straps, sticks, pickers, binders, checks, reed, shuttle, pick shaft bearings, pick points, and balls all suffer when the stick has too much sweep.

Using yellow cloth marking fluid, I painted two marks on box tops. This helps fixers and weavers keep the correct setting which is 7″ on our 50″ XD Draper looms. When the sweep is correct, the picker comes within these two lines.



The marks enable the fixer to check the setting quickly and easily, and the fixer does not have to carry a gauge or use a ruler. The magazine end box top is marked the same way. By removing a couple of quills from the magazine, the fixer can check the setting.

CONTRIBUTOR No. 8655

Readers Discuss Yarn Count Variation

EDITOR TEXTILE INDUSTRIES:

We have been discussing the various problems connected with keeping yarn weights on standard. We can think of a lot of reasons why weights vary, but we have not been able to agree on what is a reasonable variation from standard.

For instance, one mill is running on a 5.35s single filling yarn on a two-process drawing, one-process roving, single creel, and from a 0.60-hank roving. The average yarn count will vary ± 5%. I am contending that this is too much variation in average weight.

This is far in excess of our variation from average count, which we find to be 2.5%. In other words, the variation of the average yarn count is twice the amount of variation we are getting from the lightest to the heaviest end.

I wonder if you would pass this on to your experts and give me their comments.

CONTRIBUTOR No. 3784

Passed on to sources of information.—Eds.

EDITOR TEXTILE INDUSTRIES:

CONTRIBUTOR No. 3784 did not state how many bobbins he was testing each day on his 5.35s single filling yarn, nor the number of weighings per bobbin. When he says "average yarn count" we as-

sume that he means the day-to-day average and not the variation in individual weighings.

Since our mill processes differ somewhat from those in this contributor's mill we are unable to make any direct comparisons, but he must be making pretty good yarn if he can hold his variation to ± 2½% day in and day out.

One of our warp yarns, 7s single, averaged 6.94s for one week of 5 days, with a variation of 6.65s to 7.09s. (We checked one skein each from twenty bobbins each day on this particular yarn.)

To calculate the variation let us reduce this yarn to the weight in grains for 120 yd, as follows:

$$6.94s = \frac{1000}{6.94} = 144.09 \text{ grains}$$

$$6.65s = \frac{1000}{6.65} = 150.38 \text{ grains}$$

$$7.09s = \frac{1000}{7.09} = 141.04 \text{ grains}$$

The per cent variation will be:

$$150.38 - 144.09 = 6.29 \text{ grains}$$

$$\frac{6.29 \times 100}{144.09} = 4.37\% \text{ heavy}$$

$$144.09 - 141.04 = 3.05 \text{ grains}$$

$$\frac{3.05 \times 100}{144.09} = 2.12\% \text{ light}$$

The previous week this yarn averaged 6.93s, varying from 6.58s to 7.24s. The per cent variation, calculated as in previous example, is 5.32% heavy and 0.28% light.

The question of variation has received quite a lot of study in our mill—but we still do not know all the answers. We analyze our tests statistically, and of course this brings to light certain variations not shown when the average alone is used. For example, the average yarn numbers for the two weeks just cited were 6.94s and 6.93s. This appears to be good, but the variation in the 6.93s was + 5.32%, —0.28%, as compared with + 4.37% and —2.12% for the 6.94s. The coefficient of variation for the week, when the average was 6.93s, was 5.57% against 6.79% for the previous week.

We are afraid that we haven't done much to support CONTRIBUTOR No. 3784 in his contention that any variation over ± 2½% is too high, but our yarn is just not that good.

CONTRIBUTOR No. 8786

EDITOR TEXTILE INDUSTRIES:

Your contributor's letter seems to imply that individual tests of his 5.35s yarn vary from lightest to heaviest ± 2.5%, whereas the averages of several tests (probably from different machines or on different days) may vary ± 5%.

Some of this is to be expected on single roving process and single roving creel. A newly creeled bobbin will in many cases make a heavier yarn than when it is run down to a smaller size. This is more pronounced if many bobbins have to be creeled in at the same time. Also, sizing differences occur if some of the roving is stretched.

The 5% average variation does call for investigation. The best way to get a clearer picture of performance is to make control charts of the daily sizings. The first few charts with calculated upper and lower limits will serve as the starting guide for possible improvements. If by proper settings, tensions, etc., the difference between upper and lower limit lines becomes smaller, decide on your standard and try to keep within this standard.

Also, if not yet practiced in your mill, try block changing; that is, if the total average of several frames is above or below 2½% range limit, change all frames in this block finer or coarser, as the case may be.

It is reasonable to assume that any mill producing good roving can expect yarn of reasonable (permissible) variation.

In the meantime, try those control charts with upper and lower limits. The continuous picture obtained thus will point the way to improvements, if at all possible according to prevailing mechanical set-up.

Variation of finisher drawing sliver is of utmost importance. Drawing variation control charts are valuable.

Drawing frames must be in perfect mechanical order to produce even material. Drafts and settings must harmonize.

Guard against eccentric rollers, broken gear teeth, improper weighting, etc.

CONTRIBUTOR No. 8793

Lab and Overseers Must Cooperate To Make Testing Program a Success

EDITOR TEXTILE INDUSTRIES:

The necessity for a laboratory in a textile mill is a point that is no longer argued. In many instances, however, the full benefits of the investment in the textile mill laboratory are not realized because of the lack of cooperation between the laboratory and the various departments in the mill.

This lack of cooperation is not always the fault of the overseers and other mill personnel. Poor cooperation is frequently brought about by the failure of the laboratory supervisor to help the overseers, secondhands, and other key personnel in the mill to understand the functions of the laboratory. The supervisor should not fail to assist other personnel in interpreting the test results in relation to quality and production problems.

The laboratory staff may sometimes have a "know-it-all" attitude. This makes willing, cheerful cooperation next to impossible.

Before starting a testing program, the overseers should bring their personnel to the laboratory to see the instruments in operation, and the functions of each instrument should be explained. Test reports, charts, and test procedures should be explained to remove the "mystery" which usually surrounds the laboratory. The "indoctrination" program plays a major role in starting any testing

Tips on Maintenance of Card Grinding Equipment

The general attitude toward card grinding equipment is negative. Most mills consider such equipment as a necessary evil. The end result is neglect, resulting in impairment of carding quality and permanent damage to fillets and flats.

A planned program of maintenance should be set up to suit your particular conditions. Double checking by overseer, second hand or head grinder is suggested. The following may be of some assistance:

1. Check all traverse grinders and flat drum grinders for run-out. Any eccentricity in rolls is reflected in element being ground and in undue wear on emery fillet.

2. True running rolls, when equipped with unworn emery fillet, will grind true, resulting in evenly ground fillets and flats that will set to gauge.

3. Play between traverse wheel and barrel of traverse grinder indicates too much wear between wheel and barrel, worn out dogs and holders, or both. Should application of new dog, new holder and new felt washer not eliminate play between wheel and barrel, then grinder should be thoroughly overhauled.

4. Check for wear on dogs and holders a minimum of every three months, as worn out parts contribute to wear of traverse screw and barrel of grinder.

5. Thorough cleaning and oiling of traverse rolls on a schedule best suited to your conditions will add months of service.

6. Regular inspection of shafts and brass bushings on traverse and flat drum grinders is good insurance. Replacement of worn brass bearings will add months of service to shafts and will save in lubrication costs, as well as prevent fillets and flats becoming oil soaked.

7. The differential motions on traverse and flat drum grinders require systematic adjustment and lubrication.

8. Spare or idle traverse and drum grinders should be stored in a suitable rack. Covering the barrel of the traverse grinder will prevent lint from entering the slot and accumulating in and around the traverse screw.

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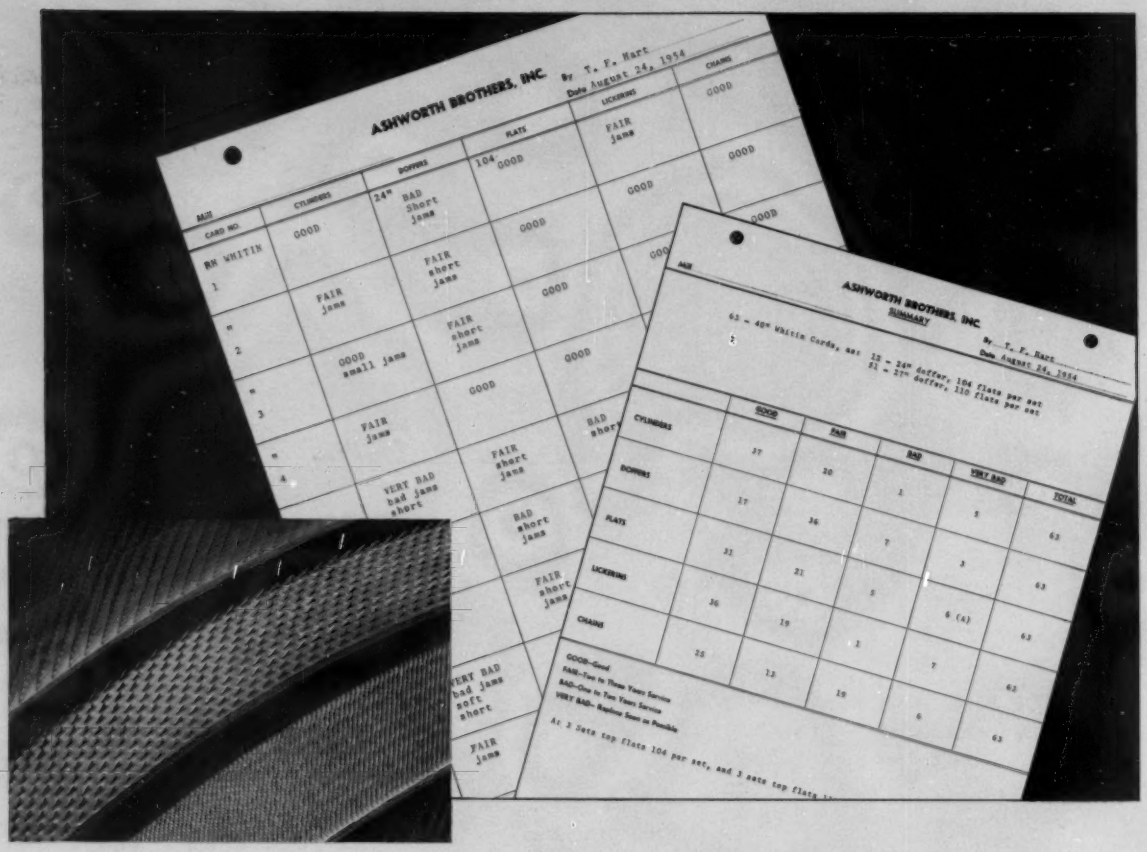
please turn the page ➧



Ashworth CARD SURVEYS

A Sure Way to Reduce Poor-Quality Losses

Defective card clothing is far more serious than a machinery breakdown, because it doesn't STOP the machine. Unless detected and replaced promptly, it permits untold losses from poor-quality sliver.

A sure way to reduce such losses is to have Ashworth make periodic surveys of your cards and card clothing. This is done by practical card men, who always use a check list so that nothing is overlooked and make a written report to you of repairs needed.

The repairs can usually be scheduled over a period, so that the cost is spread out and there is a minimum loss of productive time.

This service is free to Ashworth customers. If you're interested, get in touch with our nearest office.

ASHWORTH BROS., INC.

American Card Clothing Co. (Woolen Division)

Fall River*†‡ Worcester‡ Philadelphia*†‡ Atlanta†‡
Greenville*†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)
Los Angeles 62, Calif. (E. E. Paules, Representative)
*Factory †Repair Shop ‡Distributing Point

3 FACTORIES — 6 REPAIR SHOPS
7 DISTRIBUTING POINTS

PRODUCED BY AMERICAN WORKERS

Ashworth
CARD CLOTHING

PRODUCED BY AMERICAN WORKERS

program off on the right foot. Success of the program may be further assured by operatives who have a better understanding of the laboratory functions and how they are related to actual mill production.

CONTRIBUTOR No. 8759

HOW OTHER MEN MANAGE

Mill-Made Equipment Speeds Handling of Bobbin Boxes

EDITOR TEXTILE INDUSTRIES:

Handling bobbin boxes at our plant has been made a lot easier through the use of equipment which we developed and made up.

As shown in the photographs, the standard bobbin boxes used in the plant are mounted on small rollers which provide a little clearance between the bottom of the box and the floor. After these boxes are loaded, it is necessary to move them to a central bin where they are dumped, and the boxes are then returned for reloading.

The key to this handling system is a relatively simple bottomless cage, moved by an electric hoist suspended on a trolley system which passes over several winder hoppers.

While construction of the fabricated cage is simple enough, it has three elements which are essential to the specific service for which it is designed:

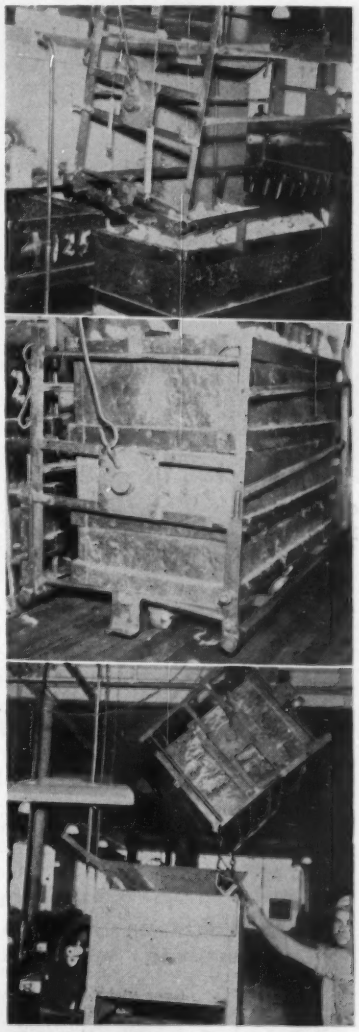
(1) A shaft, clamp, and latch arrangement at the bottom of the cage makes it possible to lower the bottomless cage over the box, and then to turn the clamps into position and lock them so the box can be raised with the cage.

(2) Suspension points by which the cage is lifted, located near the center of the end section of the cage.

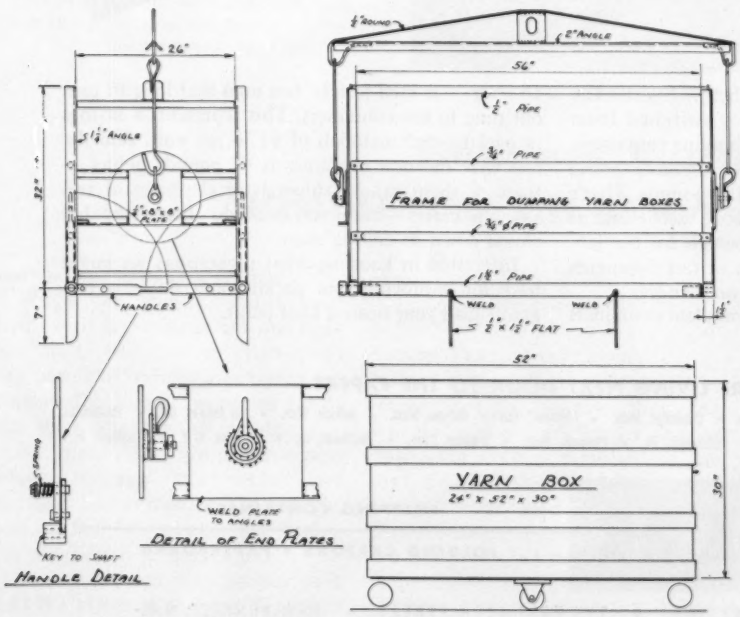
(3) The cage containing the box is transported beside the unloading hopper, and two hooks on the cage are connected to the upper edge of the hopper. Hooked in this position, pulling up on the cage with the hoist causes the cage to rotate and dump the box.

After the box is hoisted into position and rolled over to empty the bobbins into the hopper, the hooks are disconnected and the empty box is lowered to the floor and released by the catches. The cage is then moved back into position to pick up another loaded box. Since returning empty boxes for reloading is a light task, they are usually moved by hand.

CONTRIBUTOR No. 8773

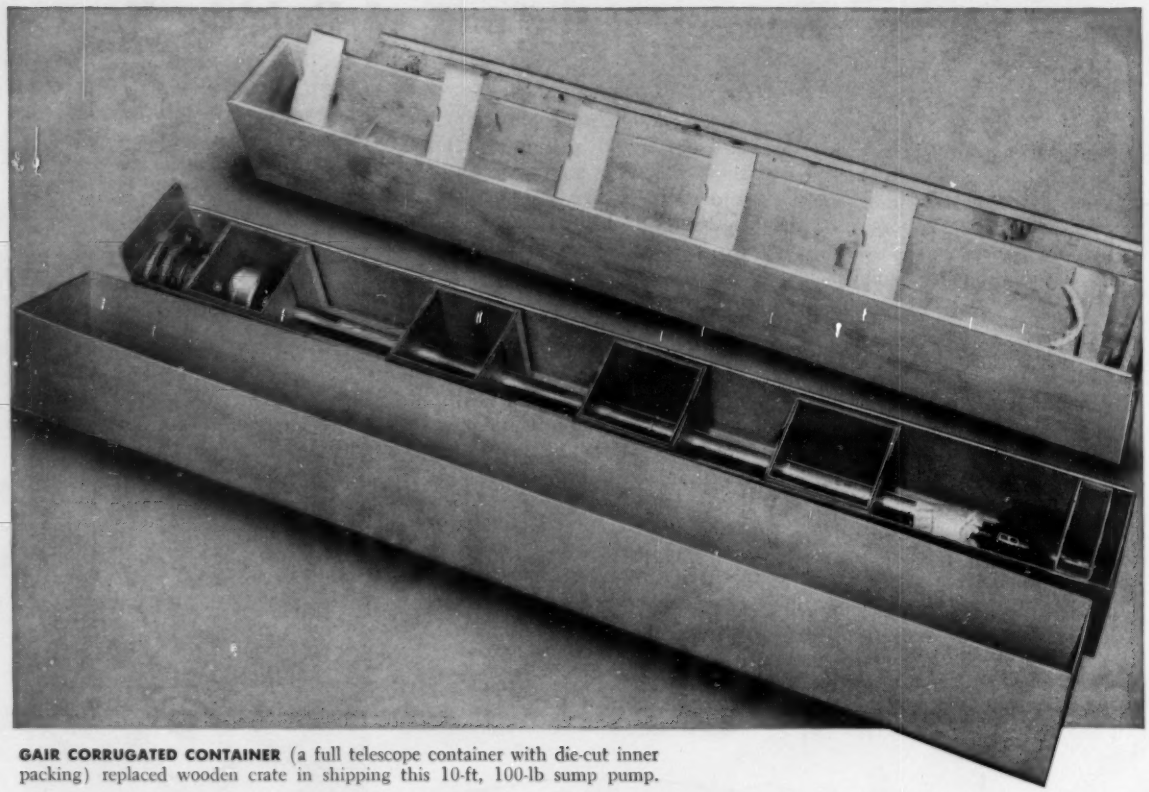


PHOTOS, top to bottom, show hoist frame being lowered over box; attached to box; and entire unit being inverted to empty bobbins into hopper.



Switching FROM WOOD TO CORRUGATED

SAVES PUMP FIRM $4.50 A SHIPPING CONTAINER



GAIR CORRUGATED CONTAINER (a full telescope container with die-cut inner packing) replaced wooden crate in shipping this 10-ft, 100-lb sump pump.

Production men at Detroit's Penberthy Injector Co. are wearing big smiles since they switched from wooden crates to Gair corrugated shipping containers.

Product involved was their ten-foot sump pump that tips the scales at more than 100 pounds. That's why Penberthy's shipping department wasn't sure at first that corrugated was strong enough for the job. Gair convinced them by a number of test shipments to various parts of the country — *no damage!*

Now one man packs thirteen complete containers an hour — it used to take two men that long to turn out nine to ten containers. This represents a savings in packing and materials of $4.50 per unit. Add the fact that the new container is 42 pounds lighter — three of them can be shipped for the price of two wooden crates — and you see why Penberthy has closed down its crating shop.

Interested in knowing what suggestions we might have for improving *your* packing and shipping program? Call your nearest Gair plant.

YOU'RE LIVING NEXT DOOR TO THE EXPERT

GAIR CONTAINER PLANTS: Atlanta, Ga. • Cambridge, Mass. • Cleveland, Ohio • Holyoke, Mass. • Jackson, Miss. • Los Angeles, Cal. • Martinsville, Va. • New Orleans, La. • No. Tonawanda, N. Y. • Philadelphia, Pa. • Plymouth, Mich. • Portland, Conn. • Richmond, Va. • Syracuse, N. Y. • Tetarboro, N. J.

SINCE 1864 GAIR ©

GAIR

SHIPPING CONTAINERS

FOLDING CARTONS • PAPERBOARD

ROBERT GAIR COMPANY, INC. • 155 EAST 44TH STREET • NEW YORK 17, N.Y.

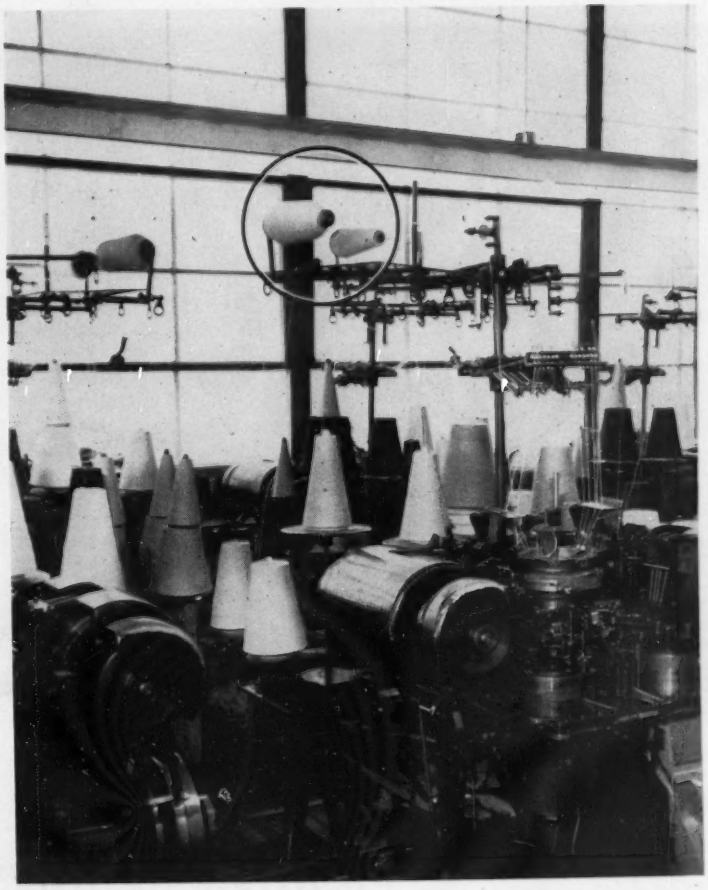
SC.5.7

Cut Knitting Waste With Extra Elastic Yarn Holder

HOW OTHER MEN MANAGE

EDITOR TEXTILE INDUSTRIES:

An additional elastic yarn supply holder may be located adjacent to the original holder on S.C.P.-51 circular knitting machines. This holder may be adjusted to point toward the yarn guide or eye. (See accompanying illustration.)



Advantages of this arrangement are:

(1) The additional holder enables the knitter to tail a new cone of elastic yarn onto one which is running out, thereby using the entire supply of yarn from each cone.

(2) By having a spare cone of yarn tied on and ready to run when the first cone is exhausted, the knitter doesn't have to keep a constant watch on the yarn supply when a cone runs low. This permits the knitter to go about other duties without encumbrance.

(3) Knitters are discouraged from removing cones with a small supply of yarn remaining on them. (When the knitter is not interested in watching a cone that is nearly exhausted, the usual practice is to remove the cone and peel off the remaining yarn as waste.)

CONTRIBUTOR NO. 8697

Readers Suggest Solutions to Problem With Warper Transformer

EDITOR TEXTILE INDUSTRIES:

We would like to enlist your help with a problem we are having with our Cocker high-speed warper. The transformer burns out repeatedly, for no reason as far as our electrician can determine.

Six months ago we put in a new block of rectifiers which we thought had remedied the trouble, but a few days ago the transformer began to burn again.

The motor on the warper is 5 hp, the rheostat is type W.L., 520 ohms, 250 volts.

CONTRIBUTOR NO. 8775

EDITOR TEXTILE INDUSTRIES:

The information in the letter leads me to believe that the warper uses a transformer to step down the voltage supplied to the mill, probably 440 or 550 volts, to the 250 volts used in the warper. The rectifiers of course convert the a-c to d-c to give the desired speed control.

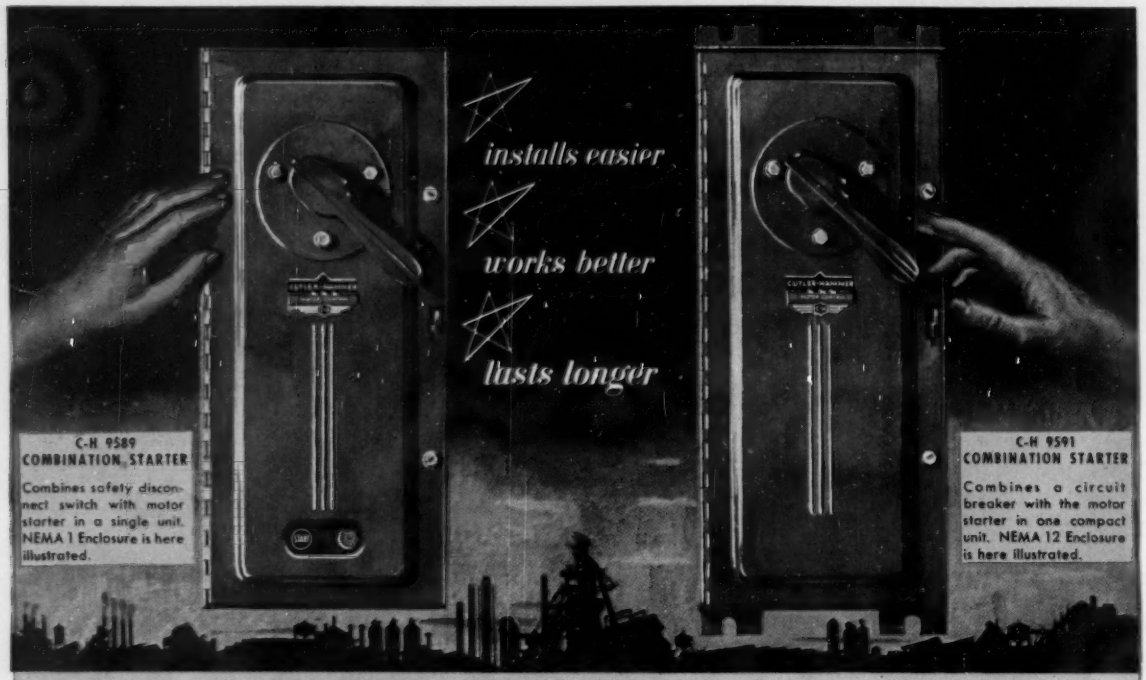
I would begin my trouble search first at the transformer itself. Since it apparently has operated satisfactorily for a period of six months and then "began" to burn out, I would check ventilation around the transformer. If it is housed in a ventilated case, the possibility of lint-clogged vents is ever present.

The next spot to check would be the rectifiers. These could be causing trouble again.

The next step, and it should be done very carefully, is to make a

WHAT'S NEW IN MOTOR CONTROL? ★ ★ ★ GET IT FIRST IN CUTLER-HAMMER

New Combination Starters in the Spectacular Line of Cutler-Hammer ★★★ Motor Control

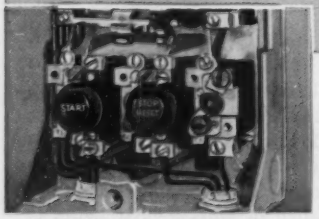

installs easier
works better
lasts longer
C-H 9589
COMBINATION STARTER
Combines safety disconnect switch with motor starter in a single unit. NEMA 1 Enclosure is here illustrated.
C-H 9591
COMBINATION STARTER
Combines a circuit breaker with the motor starter in one compact unit. NEMA 12 Enclosure is here illustrated.

Users have had many dramatic proofs of the advantages built into Cutler-Hammer ★ ★ ★ Motor Control. They *know* the three silver stars on the Cutler-Hammer nameplate identify control equipment that sets three entirely new standards of motor control performance and value.
Star #1: Amazing savings in installation costs which often exceed the cost of the control.
Star #2: Performance so uniform and dependable that *this* control often saves many times its cost by the production interruptions it avoids. Star #3: Life so greatly increased that this control *never* requires maintenance expense in 90% of its uses.

Now combination starters are available in this spectacular new line of Cutler-Hammer ★ ★ ★ Motor Control. Your nearby Cutler-Hammer Authorized Distributor has been stocked and is ready to serve you. Bulletin 9589 Starters incorporate a rugged disconnect switch of advanced design with or without fuses. Bulletin 9591 Starters are equipped with circuit breakers. Order *now* for prompt delivery.

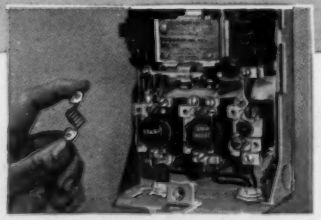
CUTLER-HAMMER, Inc., 1456 St. Paul Avenue, Milwaukee 1, Wisconsin.

CUTLER-HAMMER
★ ★ ★
MOTOR CONTROL
C-H



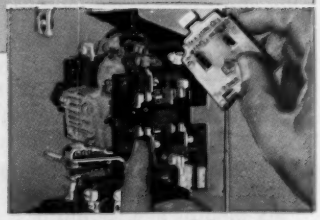
Full Three-Phase Protection

Only *three* overload relays can give complete three-phase protection to avoid motor burn-outs and their costly interruptions to production. And *only* Cutler-Hammer offers this complete three-phase protection in standard combination starters. You pay only for the third relay, nothing extra for special engineering or special enclosures.



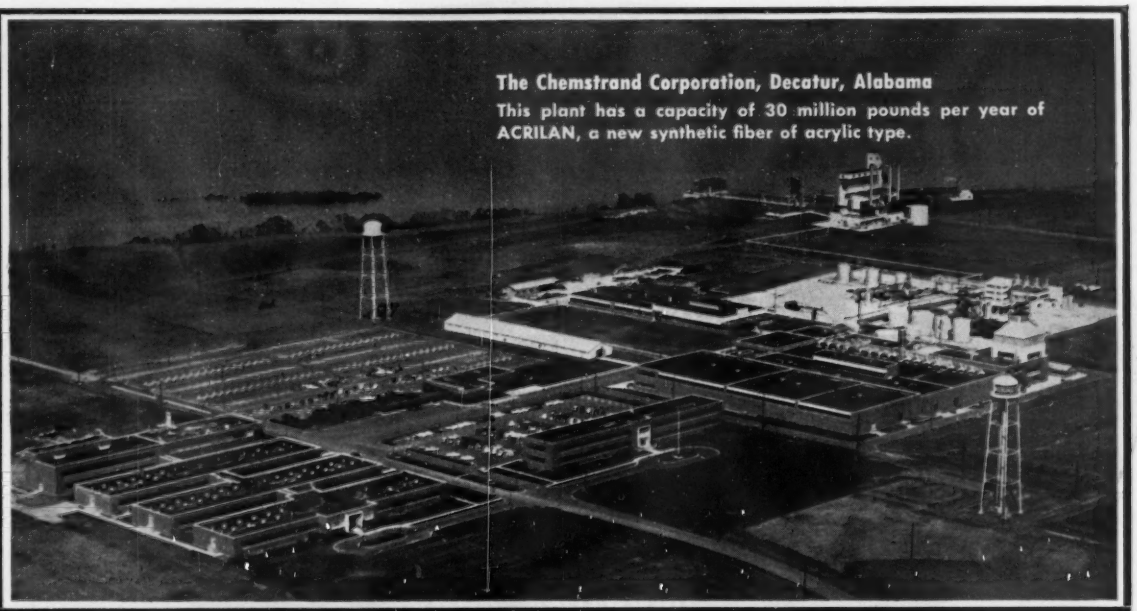
Adjustable Load Sensing Coils

The accurate adjustment of overload protection permits motors to work harder without damage to motor windings. This is more important than ever with the newer type small frame motors. Adjustable load sensing coils in these new starters provide 3% loading accuracy instead of the 10% to 12% accuracy in competitive control.



Superlife Vertical Contacts

Experienced control users insist on dust-safe vertical contacts. And now the famous Cutler-Hammer vertical contacts have been doubly improved. First, their new lightweight design cuts bounce to reduce arcing. Second, any arcing that might occur is now pressure-quenched. Compare performance and see the difference.



The Chemstrand Corporation, Decatur, Alabama
This plant has a capacity of 30 million pounds per year of ACRILAN, a new synthetic fiber of acrylic type.

LOCKWOOD GREENE PROJECTS IN . . . . .

SYNTHETIC FIBERS

In designing and supervising the construction of many synthetic fiber plants, Lockwood Greene has gained recognition in the specialized engineering problems involved in this field, with such clients as ——

- North American Rayon Corporation (Div. of Beaunit Mills, Inc.)
- Celanese Corporation of America, Rome, Georgia
- American Enka Corporation, Enka, North Carolina
- National Aniline Division, Allied Chemical and Dye Corporation, Hopewell and Chesterfield County, Virginia
- National Rayon Corporation, Ltd., Bombay, India

Continuous management services from site selection to plant completion.

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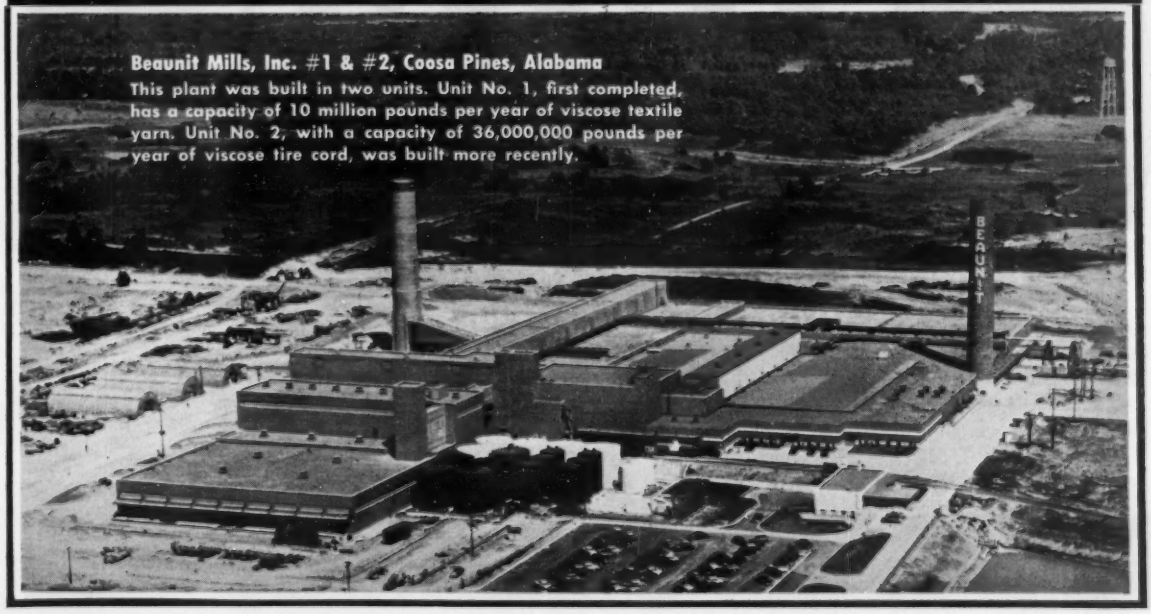
SPARTANBURG, S. C. Montgomery Building

OVER A CENTURY OF INDUSTRIAL PLANT EXPERIENCE

BROCHURE AVAILABLE UPON REQUEST



Beaunit Mills, Inc. #1 & #2, Coosa Pines, Alabama
This plant was built in two units. Unit No. 1, first completed, has a capacity of 10 million pounds per year of viscose textile yarn. Unit No. 2, with a capacity of 36,000,000 pounds per year of viscose tire cord, was built more recently.

for pure finish...

VICTOR P-40-U

BRIGHTER SHADES AND WHITES...
SMOOTHER HAND

improved finishing starches

for backfill...

VICTOR 10-55

ALWAYS UNIFORM... CARRIES MORE TALC...
MORE MELLOW HAND

THE KEEVER STARCH CO. ★ GENERAL OFFICES ★ COLUMBUS 15, OHIO
Processors of corn, wheat and blended starches for industry since 1898

Charles C. Switzer, Vice President
TEXTILE SALES DIVISION
1200 S. C. NATIONAL BANK BLDG.
GREENVILLE, SOUTH CAROLINA

complete load check on the 5-hp motor. It is possible that this motor could be overloaded when the beam is full and the machine is running at its top operating speed. If the transformer rating is balanced with the motor rating, then the transformer will have this same overload on it. This load *must* be checked with a full beam at high speed.

CONTRIBUTOR No. 8776

EDITOR TEXTILE INDUSTRIES:

Based on our experience with rectifiers, we suggest that your Contributor check for an a-c voltage going into the rectifier higher than its rating. Running this type of rectifier above its voltage rating causes the oxide layer that does the rectifying to break down, under some conditions.

He might also check to see if any of the solenoids fed by the rectifier are dirty and binding; this would require the rectifier to handle a little extra current. However, we feel that the over-voltage matter is of more importance.

CONTRIBUTOR No. 8777

EDITOR TEXTILE INDUSTRIES:

We suggest the following procedure:

1. Check hook-up with manufacturer's wiring diagram and be sure that it is correct.

2. Check load on transformer with ammeter to see if reading is within rated capacity. If necessary, check each component of the circuit to find the unit causing the overload.

3. Megger circuit, determine if there is an insulation breakdown.

These suggestions are made with the assumption that the equipment isn't subjected to excessive moisture conditions; and that the control circuit isn't left on during shut-down periods, when a drop wire could be down, permitting the transformer to be loaded continuously during the shut-down period.

CONTRIBUTOR No. 8778

EDITOR TEXTILE INDUSTRIES:

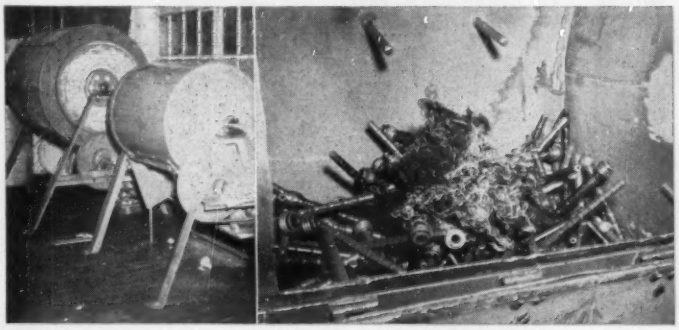
We believe that the transformer which has been replaced is the one in the Rectox unit. This Rectox unit is made up of copper oxide rectifying disks that change alternating current to direct current. This direct current is used to supply the 1/6-hp d-c pilot motor which controls the speed of the warper.

The mill should check the output of the Rectox with a d-c voltmeter to be sure the Rectox is putting out 230 volts. There are taps in the Rectox that can be used to adjust this voltage if it is not correct. If this voltage is low, it could cause excessive current to flow, thereby burning out the transformer and rectifier.

On our later model warpers, we do not use this Rectox because it gave quite a bit of trouble. We now let the exciter for the Reliance generator (which supplies 230 volts direct current) supply the pilot motor. The leads E-1 and E-2 come from the Reliance exciter. The mill could change the electrical connections and let the exciter supply the pilot motor, but should use a

(Continued on page 145)

Here's An Easy Way To Strip Quills



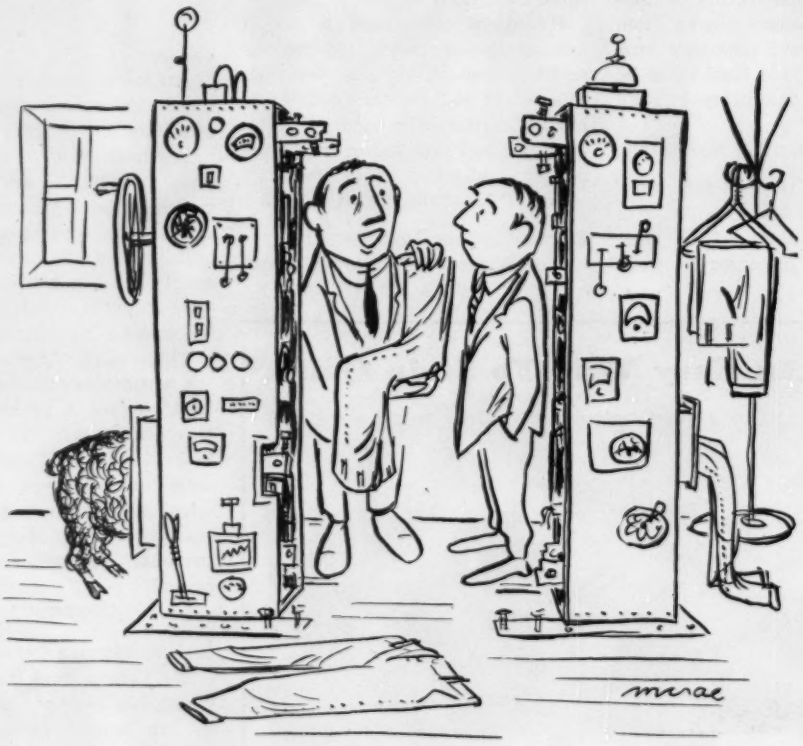
Both of the revolving drums pictured at left in the above photo were conceived and built at the Cyril Johnson Woolen Co., Stafford Springs, Conn., for the purpose of tumbling filling bobbins containing small amounts of yarn. Through the rotary action of the drums and the pins mounted inside them, yarn is stripped from the bobbins and collects in a ball as shown in photo at right, taken inside one of the drums.

Decimal Weight System Simplifies Dyehouse Calculations

The common dyehouse requirement to spend time converting from avoirdupois to metric systems and back again has been troublesome to dyers and cost men alike. Since most chemicals are sold by the pound, and usually accurate formulation requires measurement to the gram, mills generally consider this conversion a necessary evil.

A plan has been conceived and executed by the Duplan Dyeing Co. Ltd., Valleyfield, Quebec, in which the pound maintains its identity but still can be expressed in terms of fine gradations. A pound is considered to consist of 1000 units; conversions consist simply of adding zeros, and percentage figures do not require any cumbersome calculations.

All gram weight sets used for mill balances have been converted to this system by drilling out undersides of the individual pieces so that they are equal to one of the 1000-unit values.



"Si has a revolutionary machine here, if he can only figure out the middle part . . ."

This often happens to our ideas, too. But we don't give up easy. The SEYCO lab often pulls thru with the answer to a problem that looks almost this tough. Witness our full line of first-rate textile chemical auxiliaries and our reputation for mill service second to none.

Let SEYCO take a crack at those tough problems of yours.

Warp Sizing: *Softeners, Binders, Penetrants, Ty-In Penetrants, Shuttle Dressing, Waxes.*

Wet Processing Chemicals and Auxiliaries: *Dye Assistants, Penetrants, Rewetting Agents, Sanforized Fabric Oils, Detergents, Scouring Agents, Softeners.*

Niagara Twist-Setter: *Yarn Conditioning Penetrants.*

Seyco Warp Lubricator.

Headquarters for textile chemicals

SEYDEL-WOOLLEY & CO.

748 RICE STREET, ATLANTA, GEORGIA

SEYCO

(Continued from page 143)

direct current ammeter to be sure this does not overload the exciter.

On our later models we supply an exciter of larger capacity to prevent any possible overload.

P. E. SHERRILL, JR.
Cocker Machine & Foundry Co.

HOW OTHER MEN MANAGE

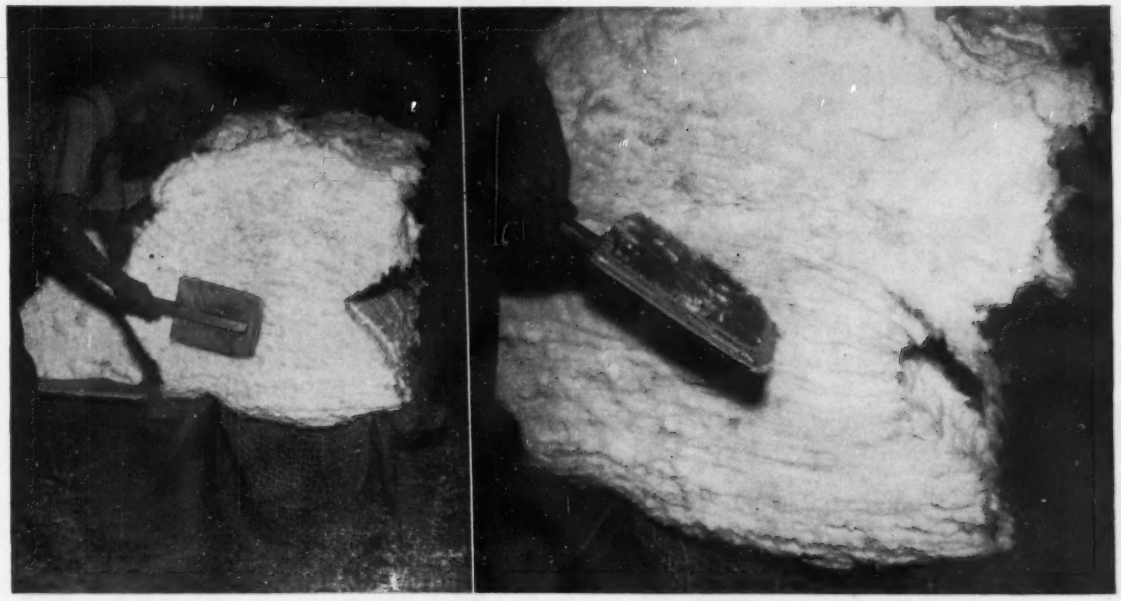
To Reduce Tar Spot Contamination-- Brush Outside of Bale

EDITOR TEXTILE INDUSTRIES:

A large majority of "tar spots" and contaminated or soiled cotton appear to be on the outer surface of cotton bales [see TEXTILE INDUSTRIES, March, 1952, pp. 132-138]. Therefore, we made a simple flat brush covered with burnisher wire with which we remove the surface layer of cotton on our bales as they are opened (see accompanying illustrations). Only a small amount of cotton is removed from each bale.

The brush does a quick and easy job of cleaning the bale; and we have found that the practice pays off considerably, in that the finished product contains less contaminated cotton.

CONTRIBUTOR No. 8725



$100 HURRY! HURRY! HURRY! **$100**

Kink Contest Closes August 15, 1955. Send Your Entry Now!

Every kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance. The $100 award will be made as soon as all entries are judged.

The contest rules are simple:

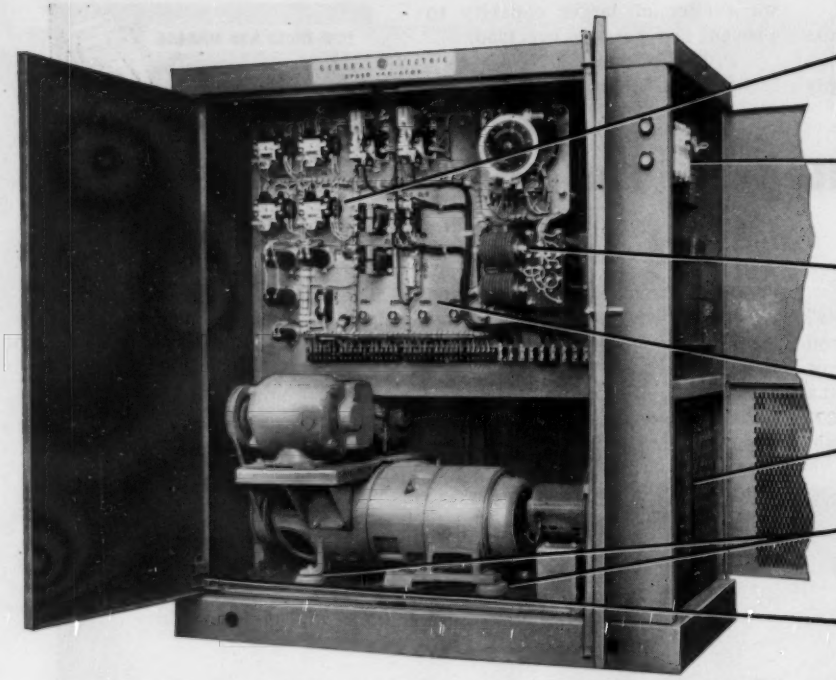
► All contributions must be postmarked not later than midnight, August 15, 1955.

► No limit to the number of entries an individual may submit in any one contest.

► All entries paid for upon acceptance — no waiting. Extra payment for photographs that are usable. Extra consideration is also given kinks accompanied by legible pencil sketches or drawings.

► Entries must not have been published previously and must not be submitted to any other publication.

Send your contest entry to: Editor TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Georgia.



STANDARD CONTROL COMPONENTS are front-connected. Replacements readily available whenever needed.

MAGNETIC STARTING CONTROL and all a-c components protected in separate compartment.

COMPACT AMPLISTAT, easily replaced stock item with no moving parts, requires no maintenance.

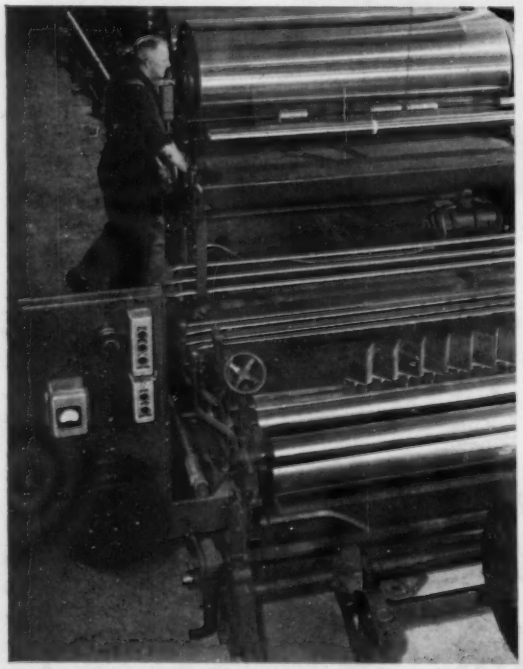
ALL DEVICES IDENTIFIED for quick recognition, easy servicing.

PRESSURIZING FAN AND AIR FILTER keep unit free from lint and dirt. Filters easily replaced.

VIBRATION DAMPERS supporting m-g set minimize vibration and reduce noise level.

HINGED, REMOVABLE DOORS for quick, easy accessibility.

NEW G-E packaged slasher drive gives you easy installation . . . less maintenance



NEW G-E SLASHER DRIVE maintains tension automatically, keeps elasticity uniform. On panel are speed and tension control rheostats, tension indicator, push-button station.

Winds up to 20% more yarn on the beam

LESS MAINTENANCE—Now, General Electric's slasher drive incorporates the amplistat, a static magnetic amplifier. With no moving parts, maintenance is cut to a minimum. To reduce downtime further, the positive-pressurized cabinet and inexpensive glass fiber filters help keep lint and dirt from power unit. Protected within case, all components are easily reached through hinged doors.

EASY TO INSTALL—Power unit comes assembled, wired and tested, and requires no special foundation. Just set unit in reasonably level position and run in conduit.

BETTER PERFORMANCE—By setting a simple dial, stepless adjustment of beaming tension can be made over a wide range to suit yarn sizes and number of ends. The G-E amplistat maintains settings automatically—makes possible up to 20% more uniformly hard-packed yarn on the beam.

Included in General Electric's new packaged slasher drive are: (1) compact, factory-assembled power unit, (2) adjustable-speed d-c drive motors and (3) operator's controls which can be mounted in most convenient locations.

FOR MORE INFORMATION—Contact your G-E Apparatus Sales Office. A specialist will show you how to get the best from your slasher operation. Direct Current Motor and Generator Department, General Electric Co., Erie, Pa.

815-5

GENERAL ELECTRIC

THERE IS A STALEY STARCH FOR EVERY PURPOSE

Whatever your starch needs, you will find the product to meet the requirements at Staley's, one of the world's largest starch producers. Our field representatives will be glad to furnish information on any product in our complete starch line.

Staley's thin-boiling starches strengthen fibers to improve weaveability

Closely controlled in manufacture, easy-to-use Eclipse starches give smoother, more flexible finish to fibers

Fast, efficient weaveability depends on strong, smooth yarns that can stand up under high-speed loom action. Staley's Eclipse starches, made to give you these qualities, can *improve* your weave-room efficiency . . . and your profit picture. Staley's Eclipse starches are available in a complete range of fluidities to meet your specific requirements. See your Staley Textile Field Representative now, or contact our nearest Branch Office for more information.

To serve you better, Staley's have extensive laboratories and a staff of technologists specifically for textiles. We welcome any opportunity to work on your problems. There is no charge, of course. Ask about this valuable service.

A. E. Staley Manufacturing Company, Decatur, Illinois
Branch Offices: Atlanta • Boston • Chicago • Cleveland • Kansas City • Philadelphia • New York • St. Louis • San Francisco

PRODUCTS FROM CORN
Staley's
AND SOYBEANS

QUALITY TEXTILE PRODUCTS
Dextrins
Pearl Starches
Thin Boiling Starches
Oxidized Starches

JACOBS

PLYWELD® Loom Necessities TAKE PUNISHMENT!

Outlast Hickory 15 to 1

SERRATED HOOKS
For Draper Pickers on Plyweld Sticks. Eliminate troublesome screws, easily adjusted.

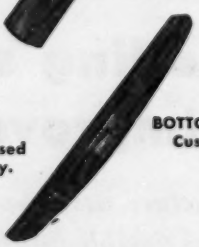
SWEEPSTICKS
Streamlined for balance and resiliency.

POWER STICKS
Outlast fiber and wood many times.

HOLDUPS
Designed to meet any Holdup problem.

PICKER STICKS
Guaranteed for longest service.

CLOTH ROLL BLOCKS
Durable.



SWELLS
For increased efficiency.

BOTTOM BOX PLATES
Custom-made for long life.

RACE PLATES
Uniform throughout.

Only JACOBS makes PLYWELD®
U. S. Pat. No. 2,503,711

THE BULLARD CLARK COMPANY

JACOBS

SOUTHERN DIVISION
Charlotte, N. C.

NORTHERN DIVISION
Danielson, Conn.

NEW Equipment AND MATERIALS

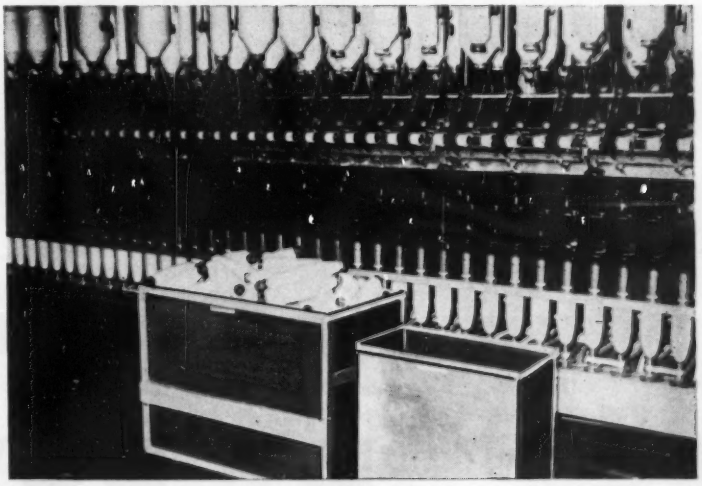
Two-Unit Truck Saves Doffer's Time

A Combination Doffing Truck (patent applied for) now available is so designed that the tight and loose boxes are easily detached from each other, allowing the doffed load to be moved on three wheels to the winder or spooler operation. The empty bobbin box can be attached to another unit so that the operator may continue his doffing with a minimum of lost time.

The box holding the doffed load can be equipped with a floating bottom to increase unloading efficiency. It may also be equipped with dumping hangars. Another feature is the fact that this box holds a complete doff from large package frames.

In some cases this full bobbin box may be used to replace conventional troughs on spoolers and winders.

The tight aluminum box for holding empty bobbins has a floating bottom to keep the bobbins always at the top, thereby increasing the operator's efficiency and reducing down-time of the spinning frames.



This combination doffing unit is designed for the individual plant, to suit its particular working conditions.

Fisher Mfg. Co., Hartwell, Ga.

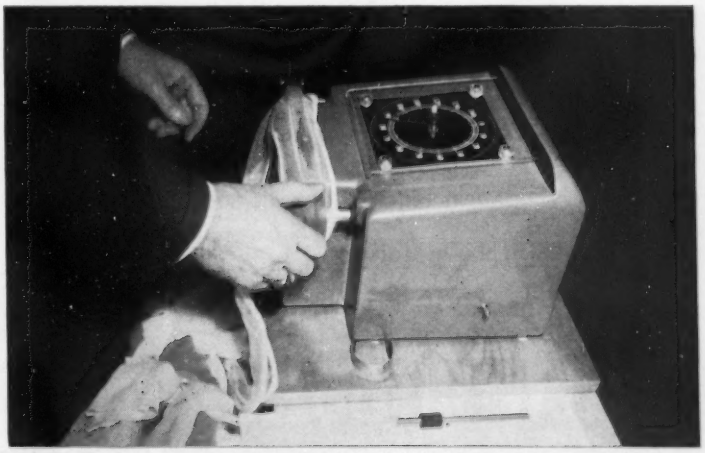
More data? Write ◂ or use card, p 171; list H-101

Device Mechanically Counts Courses in Any Hosiery Fabric

Now on the market is the "Marvel-Meter," a device for mechanically counting courses in any knitted hosiery fabric—plain or stretch—from the finest 75 gauge full-fashioned to coarser knit seamless half-hose.

The device offers the following:

1. Course counting at the point of knitting;
2. Coarse counting in any stage of processing, grey or finished;
3. Dial indicator shows number of stitches in three inches of fabric stretched under a predetermined tension;
4. Operation with no special skill;
5. Fast and dependable control of knitting heads;
6. Testing with no interruption of production flow;
7. Elimination of time lag between knitting, checking, and adjusting.



Marvel Specialty Co., P. O. Box 125, Paducah, Kentucky.

More data? Write ◂ or use card, p 171; list H-102

DOW

AVAILABLE SOON

soda ash

BY DOW

Ready for your needs shortly . . .

A high-quality and uniform *soda ash* . . .

Produced by an exclusive new Dow process.

More details will appear soon . . .

In the meantime . . .

Include Dow in your planning.

THE DOW CHEMICAL COMPANY, Midland, Michigan

you can depend on DOW CHEMICALS

DOW

A NEW, REVOLUTIONARY CONCEPT IN *Comber* DESIGN...

PRODUCTION 57 LBS. PER HOUR

COMBING EFFICIENCY 95%

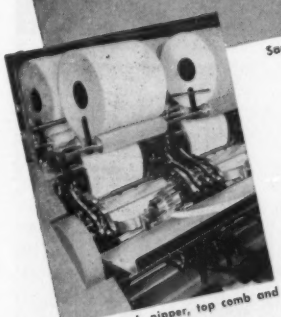
DETACHING EFFICIENCY 95%

VARIATION 12%

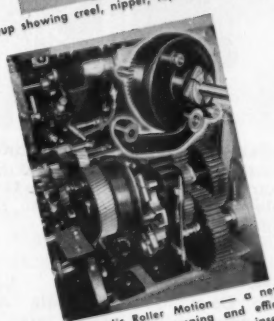
Saco-Lowell Model 56 High Production Comber

This and more is yours with the **NEW**

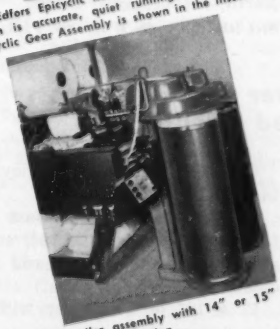
SACO-LOWELL HIGH PRODUCTION COMBER MODEL 56



Closeup showing creel, nipper, top comb and calender roll.



The Edfors Epicyclic Roller Motion — a new design which is accurate, quiet running and efficient. The Epicyclic Gear Assembly is shown in the insert.



The new coiler assembly with 14" or 15" cans and super-sensitive stop motion.

Here, unquestionably, is the "champion" – a high production comber that sets a new standard of efficiency from the standpoints of production per man hour, uniformity of sliver, recovery of fibre and low cost maintenance. This new Saco-Lowell Comber, with 800 grain lap, at 95% efficiency, produces 57 lbs. per hour — a figure unequalled by any other comber.

The new, Edfors Epicyclic Roller Motion produces a piecing so near perfection that the overlap is generally impossible to detect with the naked eye. Other improvements include: automatic top and bottom clearers; chrome plated feed and detaching rolls; a new, super efficient nipper frame, actuated by compression springs, and equipped with shock absorber bumpers; and, extensive use of anti-friction rolls.

This new Saco-Lowell Comber has Bijur equipment for automatic lubrication. It delivers a metered quantity of oil to all points requiring periodic lubrication.

Contact your nearest Saco-Lowell Sales Office — an engineer will be glad to supply you with complete details and arrange a demonstration.

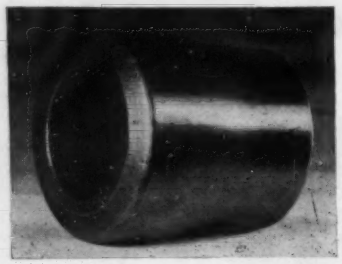
SACO-LOWELL

60 BATTERYMARCH STREET, BOSTON 10, MASS.

Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N. C.

SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA

Get More Uniform Picking on X or X-2 Looms



A new, oval-type pick ball for looms provides a more uniform picking action.

The curved contour of the face of this improved pick ball eliminates excessive heel or toe picks.

It is of particular value to mills running X or X-2 Model looms and experiencing tracking difficulties between the pick ball and pick cam toes.

Draper Corp., Hopedale, Mass.

More data? Write or use card, p 171; list H-103

8 Denier Nylon Staple

A new 8 denier nylon staple fiber in blends is expected to be especially suited to those rug manufacturers who desire greater bulk and more bloom in a cut pile fabric. This new denier also can be used to obtain more fibers per cross section with a resultant increase in the strength of the yarn.

The product permits the manufacture of a more balanced nylon-rayon blend or nylon-acetate blend by mills presently using 8 denier rayon or 8 denier acetate. It also may be used in the production of finer count yarns by mills which are not equipped to spin 15 denier. For bathroom size rugs, 8 denier produces a softer pile with greater bloom.

Also designed for use in the manufacture of 100 per cent spun nylon upholstery fabrics in which a resiliency greater than that afforded by 6 denier is desired, the new fiber is particularly advantageous in the production of short loop upholstery pile fabrics where strengthening of the loop pile is sought by furniture manufacturers.

In addition, the product is expected to make a contribution to the tufted bed spread industry, as it will give the finished spread a softer, smoother hand with more bloom and coverage than can be achieved with a heavier denier. It will, at the same time, provide more surface texture than is possible with 6 denier which this manufacturer is continuing to produce.

The 8 denier fiber is available with heat-set crimp in a brighter-than-bright luster in standard lengths.

Industrial Rayon Corp., 660 Union Commerce Bldg., Cleveland 14, Ohio.

More data? Write or use card, p 171; list H-104

Save Up to 84% Mixing Time in Wet Processing Plants

A new system for mixing solutions in the dye house or finishing room saves up to 84% of mixing time.

Using a simple, compact unit known as the "Pako Hydromixer," crystalline or powdered substances are quickly and thoroughly mixed into solution by jet impingement. This makes the device most adaptable to making dye solutions, as well as starching, resin, bleaching, softening, and other chemical solutions.

Length of time depends upon the solubility of the dye or other substance. Usually 5 to 50 gallon batches mix in 10 minutes or less.

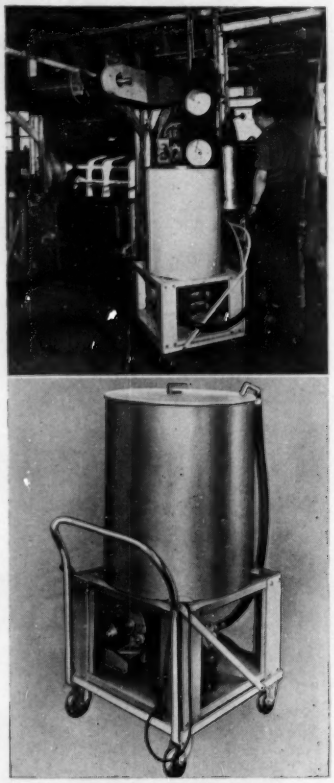
No steam or heat is used in the mixer. Cold or warm water is first put into the mixing compartment; then the dye is added. The stainless steel circulating pump and jet tube do the mixing.

The Model 50T Hydromixer is equipped with easy rolling truck for portability. Dyes may be mixed in the dye house, or in a remote room. The unit can be moved to any dye beck quickly. The machine is entirely self-contained and needs only to be plugged into any convenient electrical outlet to start operation.

Mixing tank and pump are made of type 316 stainless steel to provide long life. The unit may be used as a storage tank until dye or other solution is needed. Dust cover protects the mixture from contamination.

Solution is transferred by pump from the machine to storage container on the dye beck in from 1 to 2½ minutes, depending upon size of batch.

With no paddles or moving parts in the mixing chamber, tank and pump are easy to flush and clean.



Upper photo: Mixed dye solution being transferred from Pako Hydromixer to dye beck storage tank. **Below:** Close-up of the Pako Hydromixer.

Pako Corp., 1010 Lyndale Ave. North, Minneapolis, Minn.

More data? Write or use card, p 171; list H-105

Comber Provides Lower Operating Costs and Improved Quality

Several outstanding improvements for reducing operating costs and improving quality are incorporated in the new Saco-Lowell Model 56 Comber. They are:

A. Standard operating speed increased to 125 nips per minute.

B. A new positively acting pressure assembly for the nipper.

C. A completely new epicyclic detaching roller mechanism.

D. The 4-over-5 draw box (see TI for August, 1954, page 154) equipped with self-cleaning top and bottom clearers.

E. A 14" or 15" coiler with sensitive stop motion.

F. A new top comb assembly.

G. A new nipper frame.

Other exclusive features are: Camless head; timing for piecing is made for each side separately; deeptooth design of calender roll crimps sliver and eliminates unevenness due to table tension; large capacity creel; built as a double-sided unit; cantilever selvage guide; close setting of nipper to half-lap needles permits all needles to pass through projecting beard; percentage of noil is regulated at a single point in the head stock for entire machine; same space is required as for single-sided comber.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

More data? Write ◂ or use card, p 171; list H-106

Versatile Machine Buffs Floors 50% Faster

Especially designed for use on textile mill floors is the new Tennant "Model E" Floor Maintenance Machine which buffs weave room aisles and other areas 50% faster than was possible with earlier units of this type.

It covers a 21" path, has rapid self-propelling action, and operates flush with walls and machines. A built-in vacuum system concentrates suction along the full length of the steel wool roll.

Weighing less than 90 pounds, the machine operates off any standard 115-volt a-c line.

A special feature is a built-in wax bar so the machine can be used for fast re-waxing and polishing of office areas when desired. Spring tension lever brings the bar into contact with the polishing brush which applies a thin, uniform film of wax to the floor and polishes it to a high luster at the same time.

By use of a special liner to block off the vacuum, the machine can also be used for wet scrubbing.

G. H. Tennant Co., 2524 N. 2nd St., Minneapolis 11, Minn.

More data? Write ◂ or use card, p 171; list H-107

30-Section Full-Fashioned Sweater Machine

A new 21 gauge, 30-section full-fashioned sweater machine includes features designed to minimize operator attention through a center-of-machine racking-out control, and an automatic take-up device. It is 53' 6" long.

Center Control. Widening and narrowing fingers are racked out from the center control post by two handles, one controlling each half of the machine, and both adjustments are measured on indicator gauges. This control allows an operator to set up various sweater sizes quickly. Size can be adjusted up to a ladies' size 48.

Yarn Size. This unit is a sinker and divider type with a stitch adjustment of from 12 courses per inch (common for 2/29s Orlon) to 24 courses per inch. This range is possible because of the machine's cam operation which provides the necessary tight and loose stitch adjustment.

Speed. Courses per minute are controlled by a separate unit contained in a box at the left of the machine. Speed is variable and is adjusted through manipulation of a single handle and ranges between 40 and 70 courses per minute.

Sleeves. While the machine is designed for bodies, it can be used for knitting sleeves by making two sleeves per head. Also available, however, is a sleever which is a 24-section machine with 16" or 18" needle beds.

Stripes. The unit is delivered with four yarn carriers and has provision for three more for a seven striping carrier potential.

Fashioning Marks. A filling point attachment allows for inclusion of fashioning marks in widening as well as in narrowing. Double fashioning boxes allow for four sets of fashioning marks at the same time. This permits shaping of V-neck and armholes simultaneously.

Production Balance. An average producing time for a set is 12 minutes. An appropriate balance of equipment is two machines knitting fronts, two for backs, and one sleever.

Karl Lieberknecht, Inc., Reading, Pa.

More data? Write ◂ or use card, p 171; list H-108

Slub Yarn Attachment for Spinning Frames

Slub yarns for Shantung fabrics, draperies, tapestry, and fabrics for men's and women's sportswear can be readily produced on conventional cotton, worsted, and rayon ring spinning frames equipped with the Partington slubbing attachment (U. S. Patent 2273137). Slubs are made by increasing the speed of the back and middle rolls intermittently and irregularly.

There is no shock to the drafting rolls or frame since the speed of the rolls is gradually increased and decreased.

The slubs taper at each end and do not pattern. They are adjustable as to length, thickness, and spacing. Variations in slubbing action are automatic—there is no pattern chain.

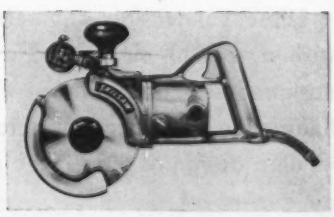
Other features: One change gear only, no complicated calculations necessary, all parts easily accessible and visible, installation time for one spinning frame is two days, time required to change from novelty to regular yarn is one minute.

G. Partington, 12 East Ave., Pawtucket, R. I.

More data? Write ◂ or use card, p 171; list H-109

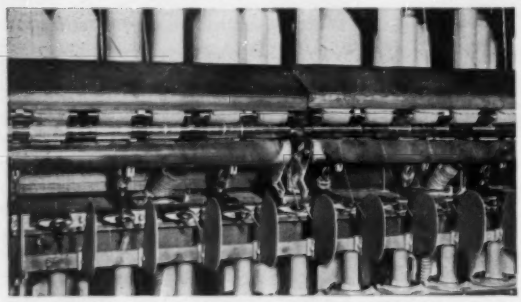
Speed Up Sampling of Baled Cotton

Recommended for speedy sampling of baled cotton, the new Model 144 cotton sampler has a built-in sharpening attachment for its special knife blade, and features a retractable



READ THE PROFITABLE DETAILS ON HOW SPINSAVAC'S VACUUM CLEANING DELIVERS CLEAN YARN, CUTS LABOR 30%

SpinSaVac's pneumatic suction of ends appreciably increases production by reducing the number of ends down. The pneumatic suction greatly eliminates the lashed ends. Quality of yarn is increased because wild or flying ends and resultant doublings are eliminated.



Spindle assignment is as much as 30% greater per operator. Yet, the operator is less hurried because time-consuming cleaning for ends down is eliminated.

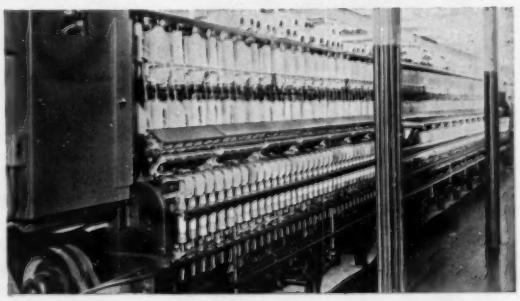
Materials drawn into the filter connecting cabinet by SpinSaVac are ready for re-use, resulting in a considerable saving of raw materials. As it is not necessary to reclean yarn, stronger, better quality yarn results. Scavenger rolls and roller laps are eliminated making possible a greater saving of top and bottom rollers.

Filter connecting cabinets are equipped with a special motor and a high duty fan designed in accordance with the latest knowledge in the field of aero dynamics. The modern design of SpinSaVac allows complete air cooling of the motor.

The collected yarn is readily removed from either side of the filter connecting cabinet.

The main ducts are made from aluminum. The internal surface which is in contact with the fibres is carefully polished, preventing damage to fibre. The spigots connecting the suction nozzles to the main duct are especially made and treated with flexible, ozone resistant neoprene to protect against deterioration.

The pneumatic collecting ends down on ringspinning frames has become indispensible for any modern and efficient spinning mill. SpinSaVac's trouble-free operation delivers better quality yarn at a considerable saving in labor and material.



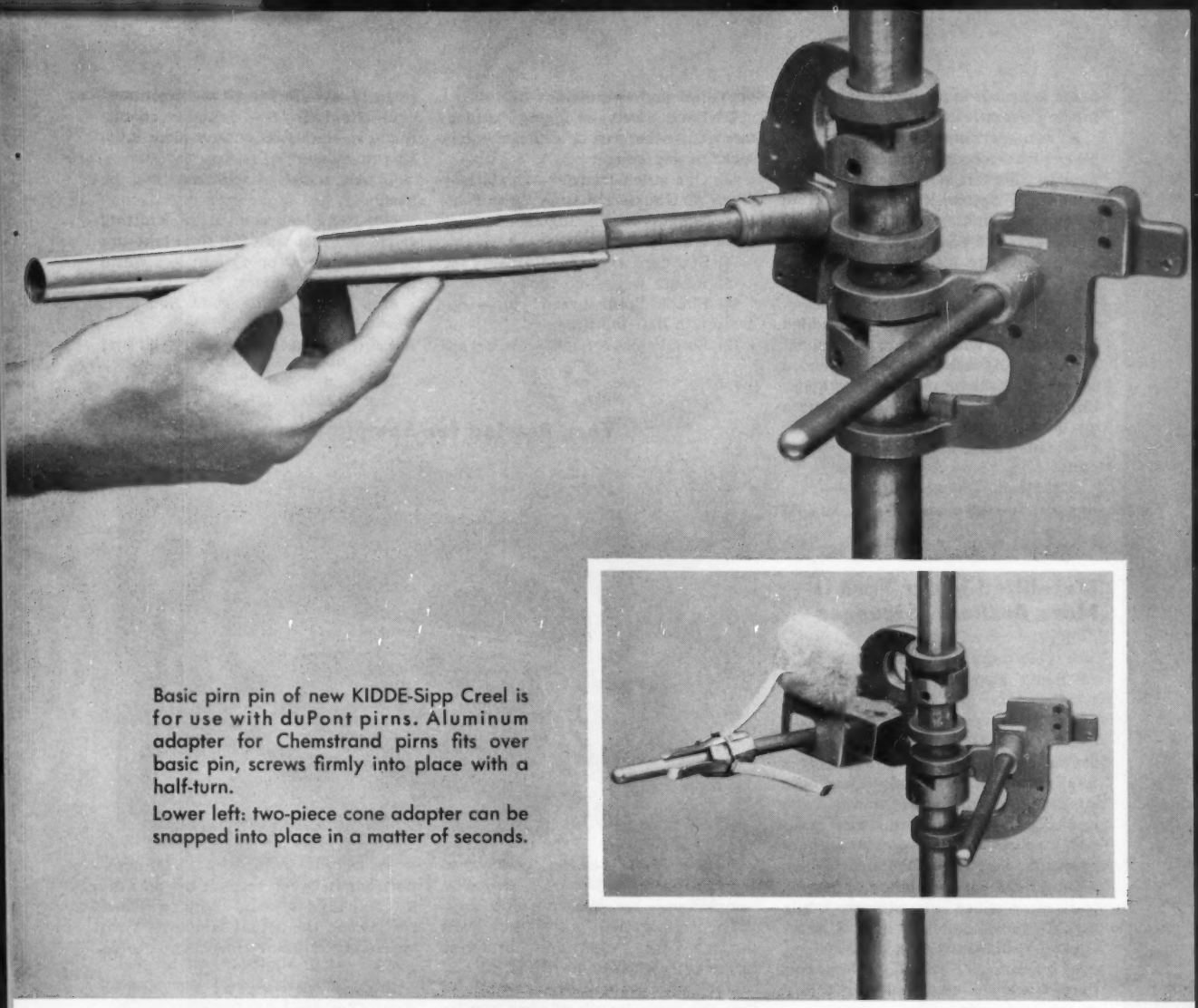
For free brochure on SpinSaVac write to

SPINSAVAC

CORPORATION

1438 SOUTH TRYON STREET

CHARLOTTE 3, N. C.



Basic pirn pin of new KIDDE-Sipp Creel is for use with duPont pirns. Aluminum adapter for Chemstrand pirns fits over basic pin, screws firmly into place with a half-turn.

Lower left: two-piece cone adapter can be snapped into place in a matter of seconds.

Give your fabric a better start with a NEW, IMPROVED KIDDE-SIPP CREEL

To help you make better warps . . . and to make your warping more versatile, KIDDE-Sipp creels have been completely redesigned. Package holder arms are much stronger. Adapters are more rigid. Even the heaviest packages will not sag out of alignment.

Basic creels are fitted with pirn holders for the 12″ duPont pirn. Adapters for Chemstrand pirns, or for cones, spools and tubes can be added and fastened securely. Change-overs are easy and quick.

The new creels have plated pins with aluminum arms and adapters. Painting is eliminated . . . no rust can get on your yarn.

KIDDE-Sipp creels are available with inside, outside or vertical yarn delivery . . . with washer, post, or pulley tensions and with Kidde tension compensators. All are available with stop motions and with annunciator lights if desired. Write for further information to . . .

Kidde

TRICOT AND RASCHEL MACHINES • TRICOT WARPERS • HORIZONTAL WARPERS
BEAMERS • CREELS • SLASHERS • WINDER-REDRAWS • TENSOMETERS

MANUFACTURING CO., INC. — 42 FARRAND STREET — BLOOMFIELD, NEW JERSEY

SOUTHERN OFFICE—267 W. MAIN ST.—GASTONIA, N. C.

The word KIDDE is the trademark of Walter Kidde & Company, Inc., and its affiliated companies.

blade guard. It is adaptable to special fabric or textile cutting operations.

A non-sparking beryllium copper alloy blade comes as standard equipment with each sampler. This blade eliminates possibility of fire from sparking. Grinding wheels, attached to the saw and easily adjusted for resharpening, are also standard equipment. Steel blades and grinding wheels are available if preferred.

Other features include: an added lower guard which offers additional safety in the use of the sampler, a screened intake on motor which keeps lint from gathering in the tool, and a circuit breaking plug which prevents overload and eliminates fuse burnout.

Skil Corp., Chicago, Ill.

More data? Write ◂ or use card, p 171; list H-110

Metallized Mylar Yarn Is More Brilliant, Stronger

A new metallic yarn that is more brilliant, stronger, and lighter in weight opens up many uses for metallics in both woven and knitted goods. Called Lurex-MM (MM—metallized Mylar), the new yarn is made by a new process which revolves around a special vacuum-coating method on one side with aluminum and laminated on one or both sides to prevent oxidation and give a balanced yarn. A clear, transparent adhesive is used to produce silver colored yarns while a gold-colored adhesive is used to secure a high-luster, non-tarnishing gold yarn at substantially less cost than would be the case if precious metals were used.

Lurex-MM can be dyed at the boil and washed or ironed compatibly with any other fiber.

The new metallic yields as much as 30 per cent more yarn, will not cut on itself, and can often be used without supporting yarns. It can be Sanforized, piece mercerized, or dyed safely with such synthetics as nylon.

The Dobeckmun Co., 350 Fifth Ave., New York 16, N. Y.

More data? Write ◂ or use card, p 171; list H-111

Automatic Rib Top Knitting Machine

An automatic rib top knitting machine, called the "Maymatic," has been developed and is being marketed by a hosiery knitting mill.

Some of the features of this machine are:

(1) True rib top—latch needles in both dial and cylinder;

(2) Rack welt—shogging attachment to make true 2 x 2 rib bobby socks in any gauge;

(3) One stitch transfer—single loop stitch at transfer line, no "seam" effect, cannot be distinguished from hand transferring;

(4) Standard type needles;

(5) Round welts—no flare;

(6) Single "pull-thread" top—separation in half the time;

(7) Simple conversion—can be applied to any standard type machine;

(8) Flexibility — cylinder change made as simply as on any plain knitting machine;

(9) All usual attachments can be used;

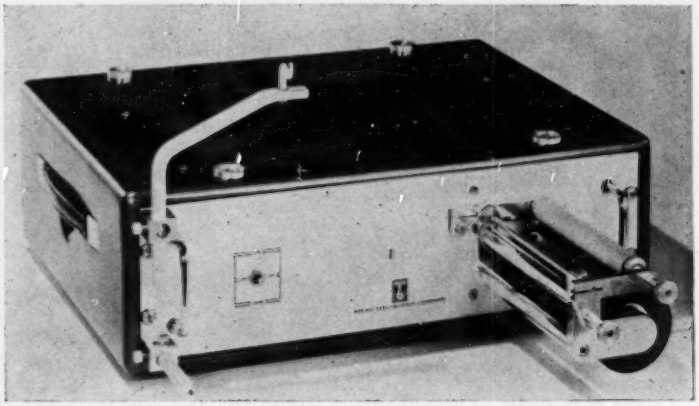
(10) Complete control of knitting in rib and foot with full float take-up;

(11) Low cost operation; less waste and fewer irregulars.

May Hosiery Mills, P. O. Box 1207, Nashville 2, Tenn.

More data? Write ◂ or use card, p 171; list H-112

Yarn Rewind for Sample Testing



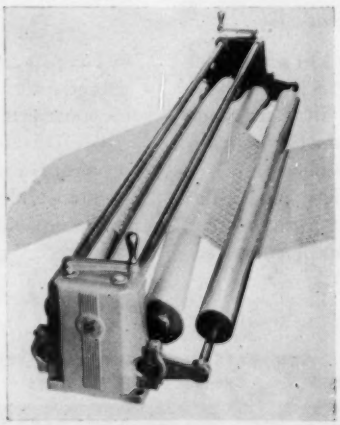
A new Yarn Rewind, engineered for accurate mill-to-mill evenness comparisons, has been developed.

The apparatus pulls the yarn through any electronic evenness tester at 5'/second and winds the test sample on a standard paper tube, so that the same length of yarn can be retested to check equipment or obtain more accurate evenness data for comparisons between mills. This permits a company to send both a chart record and the actual sample of yarn where an outside comparison is to be made.

Brush Electronics Co., 3405 Perkins Ave., Cleveland 14, Ohio.

More data? Write ◂ or use card, p 171; list H-113

Remove Creases from Delicate Fabrics without Danger of Distortion



A Multi-Bar Adjustable Expander that can expand and remove creases on delicate cotton laces, nets and meshes, and sheer synthetic fabrics without any danger of distortion, is now available.

The rugged unit is designed for installation before any operation, wet or dry, where creases cannot be tolerated and for pre-expansion of fabrics so they may be processed at or near finished width. The expansion performed by the unit can often entirely eliminate the tenter operation on certain fabrics.

The assembly consists of three Mount Hope Free Wheeling Expanders and a 4" diameter roll

mounted in heavily built brackets. Two handles move the center expander roll up or down to adjust the degree of expansion required.

Multi-bar expanders are also available with three, five, seven or nine expander rolls, depending on the degree of expansion and longitudinal stretch required for the application.

Mount Hope Machinery Co., 15 Fifth St., Taunton, Mass.

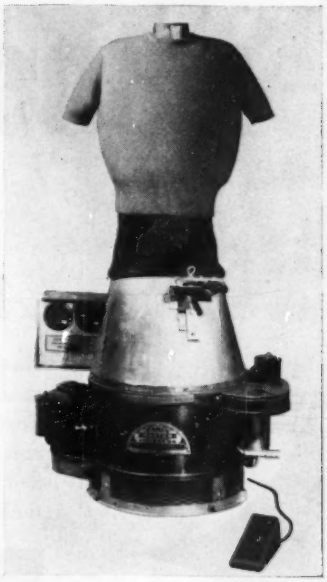
More data? Write ◂ or use card, p 171; list H-114

Automatic Steam-Air Press for Knitted Outerwear

A machine to automatically press sweaters and other knitted outerwear garments, called the Paris Sweater Finisher, handles a full range of materials, styles, and sizes. The only manual adjustment required is the positioning of a lever to correspond to a given size. Minimum production is double that ordinarily obtained from conventional buck pressing.

Pressure results from steam and air coming through an expanding nylon form over which the garment is placed. This method preserves and even enhances the hand of all knitted fabrics. Untouched by metal or any rigid substance, the natural appearance of the fabric is undisturbed by unevenness of pressure with resulting stretching, pulling or other distortion.

Steam (which must be provided by a generator or high pressure steam boiler) is applied uniformly to the garment except in sensitive areas, such as the ribbing at the neck and waist, where it is diminished or withheld. To effect this steam dispersal suitably for different styles of garments, the expanding form is custom tailored for each manufacturer. Heated air from an electrically driven fan in the machine base instantly and completely dries the garment while setting the finish.



The construction and automatic functioning of the machine preclude stretching and insure uniform shaping of every garment in each size range.

Garment Finishing Equipment Corp., 18 Brattle St., Cambridge, Mass.

More data? Write ◂ or use card, p 171; list H-115

Truck Simplifies Quill Collection

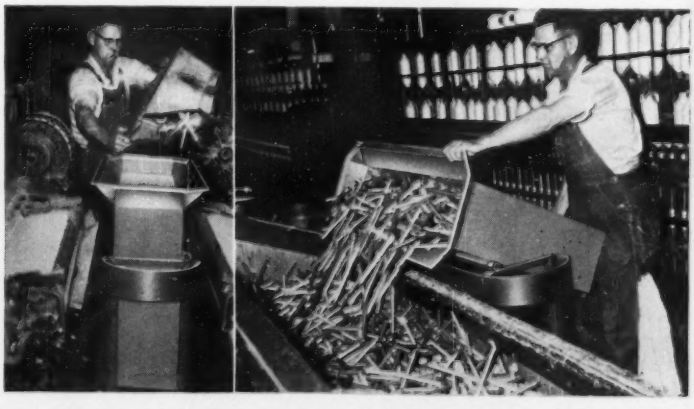
Recently announced was a Quill Take-Up Truck designed to work in alleys no wider than 12". It has streamlined rub bands and is equipped with guards to protect against damage to loom parts and to insure easy operation.

The flared top prevents quills from spilling while being loaded into this unit. A built-in dumping arrangement facilitates handling by the operator without strain. This truck dumps its load into large boxes or bins for subsequent removal to the quill stripper, thereby greatly reducing the operator's walking time.

This Quill Take-Up Truck is made to suit working conditions in the individual textile plant and can be modified to suit the buyer's specific needs.

Fisher Mfg. Co., Hartwell, Ga.

More data? Write ◂ or use card, p 171; list H-116



Speeds Product Packaging

Air regulated control is provided on the portable "Tele-Sonic" bagging machine which is designed to handle all types of bags, especially polyethylene. This feature overcomes problems in having different size bags blown open at improper positions for speed filling.

Other devices allow for greater adaptability in resetting the machine for various products and different bag widths.

Flat cut bags open with an easy operator "thumb" assist. Lip bags open automatically. Skin-tight bagging fits can be secured. Machines are available for horizontal position packaging, semi-vertical (for gravity assist), and vertical (for conveyor chute deposits).

Machine orders are accepted only after a careful and successful testing of the product to be packaged. Special parts are built to insure the utmost speed-ups.

Tele-Sonic Packaging Corp., 1170 Broadway, New York 1, N. Y.

More data? Write ◂ or use card, p 171; list H-117

All-Purpose Looper

The Columbine Record Mark II Linking Machine is an all-purpose looper of the steady dial type which produces a two-thread overstitch. Built in gauges ranging from 5 to 40 points per inch and operating at speeds up to 400 stitches per minute, the looper may be used for half hose, full length hosiery, underwear, and outerwear.

The 16" dial is rotated continuously by a worm drive. A release mechanism for the dial enables the operator

Here's a powerful new program to make your selling job easier

one name •

AVISCO®

Now your customers need remember just one name for products made with American Viscose Corporation materials. That name is Avisco, and it will supplant four names that have signified highest standards. The standards remain the same but

The name Tufton in carpeting becomes Avisco

The name Avcoset in washable rayon fabrics becomes Avisco

The name Tricale in sheets becomes Avisco

(And the name Sylvania in cellophane becomes Avisco)

Fine products in home furnishings, fashion and industry, known by the single name, Avisco, will be easier for your customers to identify, easier for you to promote, easier for you to sell.

American Viscose Corporation, 350 5th Ave., New York 1, N. Y.

AVISCO—the name, the goal,

one goal • one theme

To safeguard highest quality

To insure public regard for the Avisco name as a synonym for quality wherever it appears, a firm program of simple standards has been established. Products which meet or exceed these minimum standards of the American Viscose Corporation will be awarded the Avisco Integrity Tag.

In carpeting this means high-quality merchandise through strict control of pile fiber, pile weight and density, color-fastness, and construction.

In men's and women's apparel this means better washability, color-fastness, soil resistance, wrinkle resistance, and durability.

In sheets this means firm standards for performance in washability, wearability, and consistent resistance to shrinkage.

A unified advertising program to consumers

All Avisco's advertising dollars for *all* products will work toward one end. Launching this new streamlined program will be a series of powerful advertising campaigns to build public confidence, public preference for products that bear the Avisco name. First in the series:

Luxury shirts look new, after dozens of washings
Avisco is the reason

Enjoy guest-room sheets every night at everyday prices
Avisco is the reason

Twice as much fine carpeting for your money
Avisco is the reason

Striking four-color advertisements in *Life, The Saturday Evening Post, Fortune, Business Week, Vogue, Harper's Bazaar* will tell the Avisco story. Millions of readers will learn what Avisco means in economy, durability, soil resistance, beauty, ease of maintenance and, above all, *dependable* quality. Millions of viewers of "Home," the national TV show featuring Arlene Francis, will know that "Avisco is the reason" for the wonderful things that are happening to rayon and acetate.

the theme will give new vigor to your rayon and acetate business

to turn it by hand when a defect occurs so that repositioning is virtually instantaneous—waiting until the dial completes its revolution is unnecessary. Damaged points can be easily replaced.

A straight sewing needle is utilized; the looper is of the corkscrew type. The trapper, working against the pull of the yarn take-up wire, allows a certain amount of slackness in the yarn when the needle is in its foremost position, thus ensuring a perfect looping action.

Other features are: novel tensioning device, designed for fast threading up; a fabric shoe that keeps fabric at the back of the points to obviate damage; control is both hand and foot operated; and for underwear and outerwear production the machine is provided with a separator which is specially designed for operations in which a selvaged edge is to be looped to an unselvaged one.

C. V. A. Jigs, Moulds & Tools Ltd., P. O. Box No. N. R. 67, Brighton, Sussex, England.

More data? Write ◂ or use card, p 171; list H-118

Conveyor Press for Knit Goods

Outstanding features of the New Yorker conveyor press, especially developed for the knit goods industry, are its three-way operation and conveyor-contained vacuum, which are responsible for the great flexibility and speed of operation which can be obtained with this equipment.

The conveyor press is adaptable to press single open garments which can be steamed, shaped, pressed, and dried automatically; or it will handle folded garments, one dozen in each lay, which will automatically feed into the press, steam, press, dry, and eject, so that they can be boxed right off the conveyor belt.

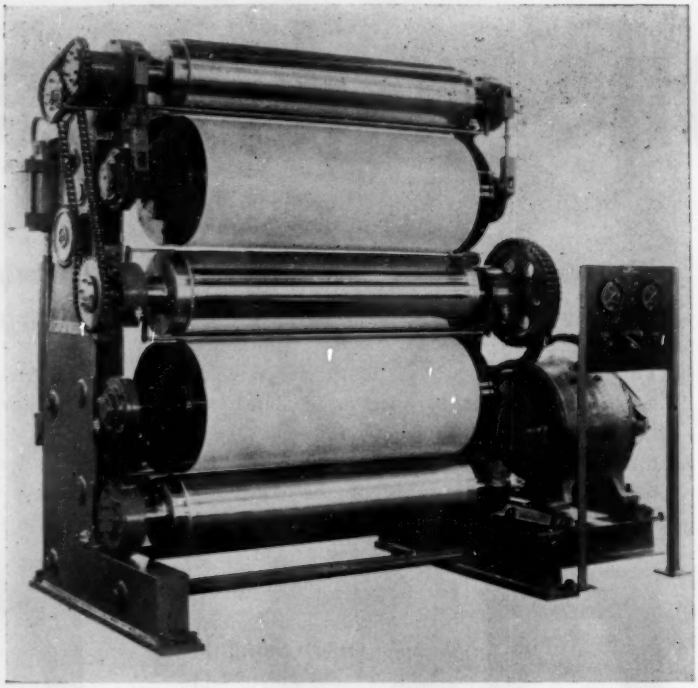
Production up to one thousand dozen per day with three or four girls can be obtained.

Other features are: (1) Automatic steam from the top; (2) automatic vacuum drying while in the press; (3) automatic vacuum drying right after garments leave press; (4) steam from the bottom buck; (5) continuous pressing cycle—timer controlled; (6) semi-continuous pressing cycle—operator controlled; (7) garments can be laid directly on press buck; (8) garments can be loaded on conveyor; (9) production can be increased by adding girls to lay and remove garments; (10) all steaming, pressing, and drying time periods are variable and can be preset; (11) porous conveyor belt which easily passes steam and vacuum.

New York Pressing Machinery Corp., 880 Broadway, New York 3, N. Y.

More data? Write ◂ or use card, p 171; list H-119

Multiple Roll Calenders are Versatile, Compact, Sturdy



New open side, pneumatically loaded, multiple-roll calenders have several distinctive features:

(1) Versatility which enables the calenders to be used for rolling, friction, schreiner, and embossing services;

(2) Unusual compactness which permits their use under conditions of restricted head room and limited floor space;

(3) Exceptional sturdiness throughout.

The distinctive design details of the calenders include provision for turn down of the filled rolls from 24-inch diameter to 18 inches, less down time than usually required for roll turning, accurate parallel alignment of the rolls no matter how many times the rolls are removed or replaced, convenient and safe accessibility of the rolls which may be removed without disturbing an adjacent roll, and air-cushioned loading which assures quiet operation at all speeds and greater protection for the rolls.

These calenders are built in capacities from 15 to 60 tons, in 3-, 4- and 5-roll types.

Textile Machinery Division, McKiernan-Terry Corp., 92 Richards Ave., Dover, N. J.

More data? Write ◂ or use card, p 171; list H-120

Spray Cotton with this Solution for Fewer Ends Down, Less Clearer Waste

Fewer ends down, less clearer waste, and elimination of troubles due to static electricity are benefits derived when a solution called "Textile Fibre Spray" is applied to cotton. And it has no effect on the dyeing process.

Recommended percentage of application is .3 of 1% based on the weight of the cotton treated. Recommended point of application is the feeder hopper in the opener room; however, it can be used at several

other places.

The cloudy solution, which has the appearance of rainwater mixed with flour, is delivered in 55-gallon metal drums. Continuous agitation of the liquid is necessary to keep it properly mixed at all times while in use.

Textile Fibre Spray, Inc., P. O. Box 246, Gastonia, N. C.

More data? Write or use card, p 171; list H-121

Hydrogen Peroxide Continuous Bleach Process Eliminates Silicate Scale

The outstanding feature of a new process for continuous hydrogen peroxide bleaching of textiles is that it completely eliminates the possibility of silicate scale formation in the J-box and auxiliary equipment.

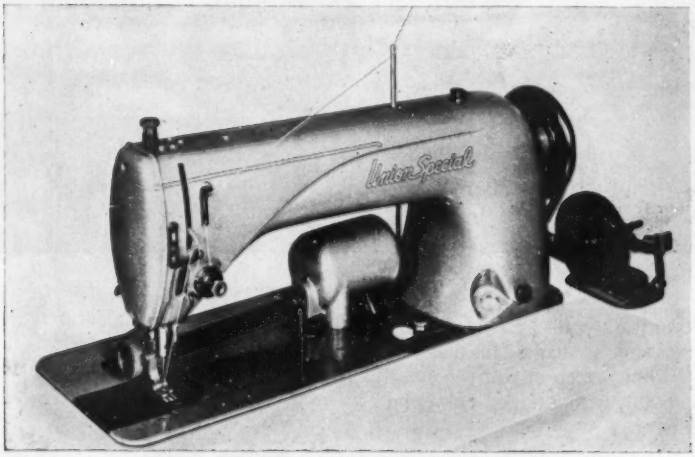
In the new process, the hydrogen peroxide bath is stabilized and made alkaline by the use of phosphates and other non-scale forming chemicals. Other than this change in bleaching solution formulation, little alteration of present conventional continuous bleaching equipment or the method of its operation is entailed in the new process.

This process, for which a patent application has been filed, is available to the textile industry under license on a non-exclusive basis.

Becco Chemical Div., Food Machinery and Chemical Corp., Buffalo, N. Y.

More data? Write or use card, p 171; list H-122

Lockstitch Machines Permit Precision Matching without Slow Down



On any lockstitch sewing operation where matching of parts is essential, and where feeding is a problem, four top roller feed lockstitch machines recently announced can add greatly to production possibilities. The new machines permit precision matching without speed reduction—a combination that means better quality at lower cost, and with less operator fatigue.

Speed of the top roller can be varied to suit the operation and the material being handled. It can be set to run slower, faster, or at the same rate as the underfeed.

Style 61400 P has the top roller centered 1⅝" directly behind the needle. It has a needle bar travel of 1-9/64" and is for use on light to medium weight materials.

Style 61400 S is identical to Style 61400 P except that it has a high throw needle bar travel of 1-13/64" for use on medium to heavy weight materials.

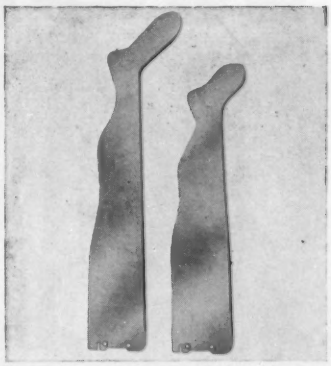
Style 61400 N has top roller located to the right of the needle. It has a needle bar travel of 1-9/64" and is for use on light to medium goods.

Style 61400 R is identical to Style 61400 N except it is a high throw machine with a needle bar travel of 1-13/64" for use on medium to heavy weight materials.

Union Special Machine Co., 400 N. Franklin St., Chicago 10, Ill.

More data? Write or use card, p 171; list H-123

Stretch-Stocking Boarding Forms



Two new stretch-stocking boarding forms are being marketed. One model is fore-shortened to allow for lengthwise stretch and fit. The other style is narrower to provide spreading the finished stocking in width. The manufacturer will alter either model, without extra charge, to individual specifications.

The new forms are aluminum, with a glass-smooth finish. Edges are carefully finished to eliminate all danger of snags and pulls.

Turbo Machine Co., Lansdale, Pa.

More data? Write or use card, p 171; list H-124

New Soil Retardant for Carpet Mills

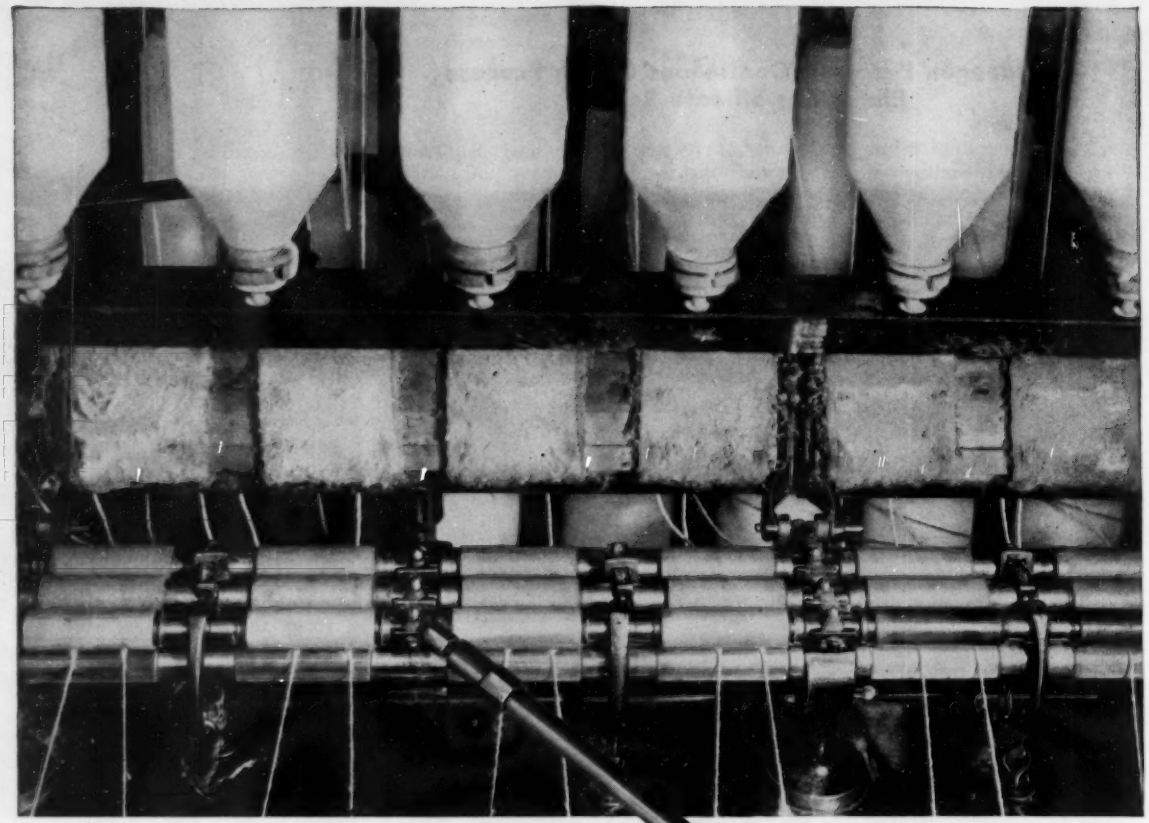
Production of a new, improved, chemical compound for making rugs resistant to soil and dirt was announced recently.

Tests show that when rugs that have been treated with the compound, known as Cyana Soil Retardant, are subjected to dirt and soiling by being walked on and by exposure to normal air borne dirt and soot, they will stay clean up to five times longer than untreated rugs, tested under identical conditions. Tested rugs, vacuumed or shampooed, clean easier and more thoroughly than the untreated rugs.

The new soil retardant does not impair the smoothness or softness of the surface, and does not cause "dusting." Among other advantages of this compound is freedom from tendency to discolor or absorb stains from certain types of rug backing. It has little or no effect on the light fastness of dyes.

The compound acts by filling the roughnesses on the fibers with an almost invisible, microscopic material. This prevents soil from clinging to the

WON'T DRIP!



Switch now to Sinclair NO-DRIP and protect your yarn and roll coverings from spoilage. This fine lubricant *stays in place,* without creep or drip—permitting rolls to turn smoothly without drag, providing even draft . . . and *saving wear.*

Sinclair NO-DRIP Lubricants can *save you money* by assuring smooth operation, low maintenance . . . eliminating costly spoilage and repairs.

Call your Sinclair Representative today for further information or write for the new NO-DRIP pamphlet to Sinclair Refining Company, Technical Service Division, 600 Fifth Avenue, New York 20, N. Y.
There's no obligation.

SINCLAIR NO-DRIP

TEXTILE LUBRICANTS

MONSANTO TEXTILE TALK

DRESS: "EVERGLAZE" COTTON BY NELLY DE GRAB

MONSANTO'S MELAMINE RESINS DON'T WASH OR DRY CLEAN OUT OF FABRICS

When cottons and wools, pure synthetics and blends are treated with Resloom, two things are certain:

1. They will be upgraded in hand and appearance.

2. They will retain their fresh-and-new look through countless washings or dry cleanings.

Monsanto has formulated Resloom HP and M-75 from melamine, the resin that's hardest and most durable of them all. Their resistance to water, alkalies and solvents is remarkable.

Resloom resins do not coat the fabric. Instead, they are deposited inside absorbent fibers. The resins actually modify the characteristics of the fibers.

Though extra hard, Resloom resins do not create a harsh hand when the fabric is properly impregnated. And they are in a class by themselves for surface lustering or glazing.

Treatment with Resloom develops excellent crush resistance, dependable shrinkage control and novel textures. A Monsanto representative will be glad to work with you on technical problems relating to special finishes. Write Monsanto Chemical Company, Plastics Division, Dept. 11-8, Springfield 2, Mass.

It pays to finish fabrics with durable

RESLOOM *MELAMINE RESINS*

*RESLOOM: REG. U. S. PAT. OFF.

MONSANTO

Serving industry . . . which serves mankind

FOR PRECISION WEIGHING IN THE TEXTILE PLANT

Extreme accuracy, speed and dependability of EXACT WEIGHT Scales make them specially suited for the many precision weighing jobs in your industry. These specialized scales are designed for weighing, compounding dyes; for weighing minute samples; for checkweighing finished products as well as heavier duties. Two of many EXACT WEIGHT models are shown below.

DYE HOUSE SPECIAL

Model 8003-DH

Precision scale—11 lb. capacity. Dial, 2" travel equivalent to 2 ounces over and under. White baked enamel finish, stainless steel platter, nickel silver scoop.

PLATFORM SCALE

Model 4005-2

Heavy duty scale—500 lb. capacity. Hydraulic dampening device brings indicator to rest quickly. Easy to read dial with 3" indicator travel equivalent to 3 lbs. over or under.

Exact Weight Scales

Better quality control

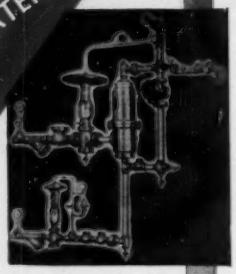
Better cost control

THE EXACT WEIGHT SCALE COMPANY

922 W. Fifth Avenue, Columbus 8, Ohio

In Canada: P. O. Box 179, Station S, Toronto 18, Ont.

Insist on **Pick** INSTANTANEOUS HOT WATER HEATERS



SAVES MONEY IN ALL TEXTILE WET PROCESSING

IN DAILY USE at . . .

Bates Mfg. Co.

Exeter Mfg. Co.

Pepperell Mfg. Co.

Fieldcrest Mills

Dan River Mills

Pendelton Woolen Mills

and many others.

PICK GIVES YOU MAXIMUM EFFICIENCY

★ *Water Is Heated INSTANTLY* by steam injection. Fuel savings are substantial because there is no waste — water is heated only as used.

★ *Pick Heaters Maintain Continuous Flow* at preset temperature for bleaching, dyeing, scouring, etc.

★ *Safe, Quiet Operation.* Exclusive "Pressurizer Piston" assures maximum safety and eliminates hammer, noise and vibration on continuous or "start and stop" loads.

☆ *No Storage Tanks Required.* Pick Heaters are compact — can be installed in corners, on walls or overhead. Saves valuable floor space.

★ *Many Other Cost-Reducing Advantages.* Maintenance cost is remarkably low because Pick Heaters can be cleaned in a matter of minutes. Installation is simple and inexpensive . . . only ordinary pipe connections are required.

Write Dept. T1354 for booklet on how Pick Heaters cut costs of hot water. No Obligation.

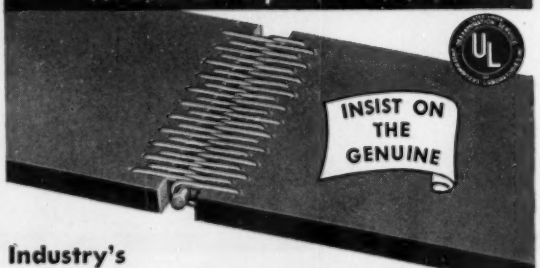
PICK MANUFACTURING CO.

WEST BEND, WISCONSIN

Clipper

BELT LACING EQUIPMENT

For Belts and Tapes 1/16" to 3/8" thick



Industry's Most DEPENDABLE Belt Joints

Proven by use and comparison, Clipper Belt Hooks assure longest service. Made from uniformly high quality, fatigue resisting wire produced exclusively to meet our rigid specifications. For easy application and maximum uninterrupted service, use GENUINE Clipper Belt Lacers. There is a type and size for your needs.

Ask your Industrial Distributor for CLIPPER Products.

No. 9 Portable Lacer

CLIPPER BELT LACER CO.

Grand Rapids 2, Michigan

fibers, and makes it easier to remove dirt that accumulates in the rug.

Cyana Soil Retardant is available to rug manufacturers for application in the mill on all types of fibers.

Textile Resin Dept., American Cyanamid Co., 30 Rockefeller Plaza, New York 20, N. Y.

More data? Write ◆ or use card, p 171; list H-125

Equipment Briefs

For handling sulfuric acid and other highly corrosive chemicals is a **stainless steel pail,** capacity of which is 3 gallons. Inside walls are welded, ground flush, and polished.

Reading Scientific Co., 13th and Pike Sts., Reading, Pa.

More data? Write ◆ or use card, p 171; list H-126

A new and simplified **torque converter-type fork truck drive** called Hystamatic Drive, is now offered for the Hyster 3,000-lb capacity UC-30 and the 4,000-lb capacity YC-40 lift trucks. Smooth flow of power eliminates any engine lugging, creating faster maneuverability and greater work output. Includes clutch for precise speed regulation when combining the traveling and hoisting operation.

Hyster Co., 2902 N. E. Clackamas St., Portland 8, Ore.

More data? Write ◆ or use card, p 171; list H-127

National Carbanthrene Printing Black BBD Double Paste is a non-drying homogenous anthraquinone vat printing paste, free from grit, and **produces jet black shades on cotton and rayon.** Possesses maximum light fastness and very good to excellent fastness to most wet processing. Very fast to rubbing.

National Aniline Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

More data? Write ◆ or use card, p 171; list H-128

A **redraw cap assembly** now available utilizes a rubber O-ring to eliminate gouging and scratching of plastic-covered pirns. Caps are extremely smooth and long wearing. The new rubber ring insures a firm grip on the smoothest pirn, yet permits the cap to be snapped on and off instantly.

Synthane Corp., Oaks, Pa.

More data? Write ◆ or use card, p 171; list H-129

A compact **50 hp steam generator** designed to burn #4 oil makes it possible for manufacturers with limited space facilities to cut fuel costs as much as 30 per cent. Boiler operates at efficiencies of 80 per cent or better. Can be installed in 20 sq ft of floor area and requires only 4' 8¼" head room. Cement foundation is not required—only fuel, water, and electricity.

Cyclotherm Division National-U. S. Radiator Corp., Oswego 5, N. Y.

More data? Write ◆ or use card, p 171; list H-130

The Guide-O-Matic **operatorless industrial tractor** moves trailer trains to prescribed destinations without a driver. Motivation is provided electronically from signal boxes installed at desired locations in the plant, through the medium of a guide wire installed overhead along the tractor's route, or imbedded in the floor. A "sniffer" box mounted on the tractor picks up the transmitted radio waves from the guide wire. Pressing a button on the signal box will call a tractor, or cause a trailer train to move in a steady path to its destination.

Barrett-Cravens Co., 628 Dundee Rd., Northbrook, Ill.

More data? Write ◆ or use card, p 171; list H-131

Miike **thiourea** is particularly well suited to fabric finishing because its extremely low iron and sulfur content virtually eliminate fabric staining. Used in resin formulations for stiffening synthetic fabrics, it reduces flammability to the degree required by law.

Baird Chemical Corp., 254 West 31st St., New York 1, N. Y.

More data? Write ◆ or use card, p 171; list H-132

Designed for retrieving ferrous material from all types of tanks, basins, or troughs is the new Eriez **permanent, non-electric dip tank magnet.** It is particularly useful where hot liquids or corrosive acids are involved. Capable of lifting objects weighing 75 to 100 pounds. Has 8-foot handle.

Eriez Mfg. Co., Erie, Pa.

More data? Write ◆ or use card, p 171; list H-133

The Dr. Lange **reflection densitometer** is a photoelectric instrument especially designed for determining rapidly and objectively by reflected light the density, color, and proportion of white content of fabrics, paper, and solids. The instrument is sufficiently sensitive to indicate variations in density or color of 0.1 per cent. It permits measuring of details down to 0.04" diameter.

Epic, Inc., 154 Nassau St., New York 38, N. Y.

More data? Write ◆ or use card, p 171; list H-134

A **32-station scanner which checks process temperatures** at all stations every two minutes during the duration of process operation is available. Pilot light indicates point being checked. Should any station be "off limits," visual or audible alarm is given.

Wheelco Instruments Div., Barber-Colman Co., 1300 Rock St., Rockford, Ill.

More data? Write ◆ or use card, p 171; list H-135

For fast-color dyeing of Arnel, five Interchem Triacetate dyes are available. Having excellent fastness to washing, light, and sublimation, they are useful alone for producing full bright shades and in combinations with one another for producing a wide range of popular mode shades. Some are suitable for application printing.

Interchemical Corp., Textile Colors Div., Hawthorne, N. J.

More data? Write ◆ or use card, p 171; list H-136

Longer service is provided by an improved **warp stop transformer** for looms which was recently announced. Built to help compensate for the failure-causing heavy power line surges prevalent in many areas.

Hindle Transformer Co., Flemington, N. J.

More data? Write ◆ or use card, p 171; list H-137

A one-piece seamless plastic **color tub** for use in wet processing has very high impact strength, resistance to abrasion, and is guaranteed not to chip. Gloss finish inside and out, noncorrosive, impervious to most acids and alkalis, easy to clean, equipped with handles and chime. 10 and 25 gallon capacities.

Anawan Plastics and Machine Corp., 22 Boomer St., Fall River, Mass.

More data? Write ◆ or use card, p 171; list H-138

Especially designed for applications requiring frequent braking is a new **brake motor** which features a mechanical brake that saves as much as 7⅜" in length and eliminates costly maintenance. Besides stopping gently, brake allows for smooth, easy acceleration from standstill to full load. Can be inched.

The Cleveland Electric Motor Co., 5213 Chester Ave., Cleveland 3, Ohio.

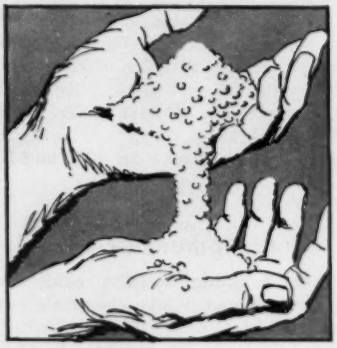
More data? Write ◆ or use card, p 171; list H-139

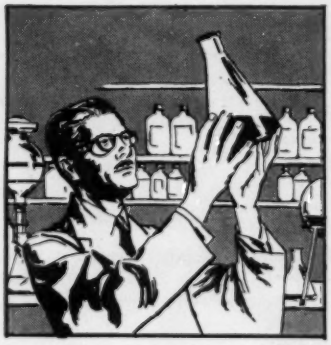
A new **emulsion polymer,** Wicaset 462, is a non-ionic polyvinyl acetate that is highly compatible with a wide variety of softeners, finishes, and thermosetting resins. Recommended for use wherever stiffening, sizing, or bondage is desired. Resistance to light and heat and fine mechanical sta-

GLOBE®
is the preferred pearl corn starch because.....

GREATER CLEANLINESS

Modern methods, automatic controls and careful handling make Globe Brand Pearl Corn Starch the cleanest pearl starch available! Globe is always available in quantities to meet your specific needs.



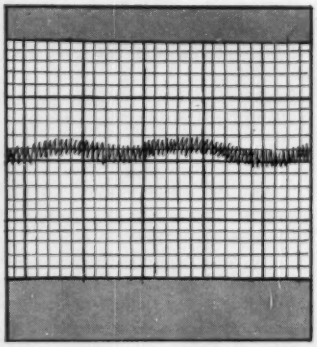


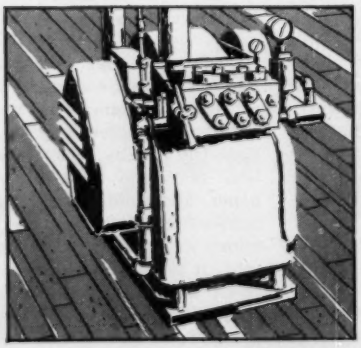
GREATER UNIFORMITY

Globe Pearl Corn Starch is made under exacting conditions. Each batch meets your specifications. Accurate laboratory checks give you extra assurance of this uniformity.

STABILITY OF VISCOSITY

Globe Pearl Corn Starch maintains its fluidity. It gives perfect performance in size box, producing a smoother, tougher size; giving a yarn of greater strength and reduced shedding.





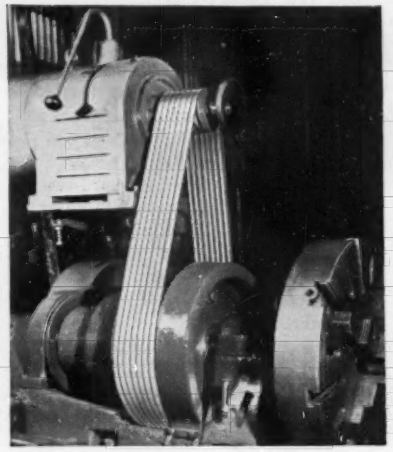
RECOMMENDED FOR HOMOGENIZERS

Globe Pearl Corn Starch is especially designed for mills using homogenizers. Globe's uniformity and cleanliness help produce a uniform end-product which, in turn, produces a smoother, tougher size.

● Corn Products Refining Company's laboratories are especially equipped to help you with specific production problems. This service is yours without cost or obligation. Write us.

Corn Products Refining Company · 17 Battery Place, New York 4, N. Y.

This large lathe was formerly driven by a flat belt which slipped on heavy cuts, stalled and broke tool bits. Savings on broken tool bits alone offset the cost of the drive the first year—and production was increased 25% after the V-belt drive was installed.



concave sides lengthen V-belt life ...cut costs

Hundreds of plants that keep track of V-belt drive costs know this: Gates Vulco Ropes . . . the V-belts with *concave sides*...wear much longer and *cost less per year of service.*

Here is the interesting reason why:

When a Gates V-belt bends around the sheave, the *precisely-engineered* concave sides (Fig. 1) fill out and become straight. Thus the sides of the belt make full, uniform contact with the pulley (Fig 1-A).

Naturally, uniform contact distributes the wear *evenly*. And *even* wear means *longer* wear.

Longer wear saves not only on replacement costs; it also saves the cost of down-time... keeps equipment producing.

Simple test proves value of concave sides

Take a straight-sided V-belt (Fig. 2) and bend it. Feel the sidewalls of the belt bulge out as the belt bends. You see immediately that the bulging sides prevent uniform contact with the pulley (Fig. 2-A). Uneven contact causes faster wear...increases your drive replacement costs.

Let the cost-saving longer life of Gates Vulco Ropes contribute to *your* profits. Specify Gates Vulco Ropes—the V-belts with concave sides (U.S. Patent 1813698). The Gates Rubber Co., Denver, Colorado—*World's Largest Maker of V-belts.*

Gates Engineering Offices and Distributor Stocks are located in all industrial centers of the United States and Canada, and in 70 other countries throughout the world.

TPA-84A

GATES VULCO ROPE DRIVES

bility are excellent. As an additive or separate finish, it may be applied with conventional equipment. High temperature drying is not required. Fine particle size adds hand control of finished goods and minimizes marking and sticking. Extreme water resistance of dried films offers unusual coatings possibilities.

Wica Chemicals, Inc., Charlotte, N. C.

More data? Write or use card, p 171; list H-140

A **metal cutting saw** that operates as a band saw or a cut-off saw splits, notches, slots, saws contours, and performs cut-off operations. Table mounted, it is easily detached for portable cut-off use. Saw column pivots the cutting edge of the blade.

Gibbes Machinery Co., Columbia, S. C.

More data? Write or use card, p 171; list H-141

Paper thermometers, called "Thermopapers," recently announced are a graded series of heat-sensitive coated papers calibrated to accurately determine temperatures from 115 F to 490 F. They change appearance sharply from white to black at predetermined temperatures The changes occur within a fraction of a second and with an accuracy of plus or minus 1 per cent of the stated temperature. Color change is permanent. Also available sealed in glass. Record temperatures in drying equipment, motors, ovens, bearings, etc.

The Paper Thermometer Co., 10 Stagg Drive, Natick, Mass.

More data? Write or use card, p 171; list H-142

Recommended for use as a **scouring compound and dye assistant** for wool, synthetics, and silks, and with alkaline builders on cottons is a new detergent called "Supronyx." A modified sodium alkyl sulfate, neutral, mild, and anionic in character, the surfactant has outstanding soil-carrying properties. Liquid compound, easily dissolved, has excellent resistance to hard water, exceptional foam stability, rinses out quickly and thoroughly, and is gentle and non-irritating.

Onyx Oil & Chemical Co., Warren & Morris Sts., Jersey City, N. J.

More data? Write or use card, p 171; list H-144

Three variations of a **standard electronic level and flow detector and controller** have been developed: (1) to insure greater accuracy in controlling levels of substances having low electrical conductivity, or in interface applications where materials are of similar dielectric constant, the tube-in-probe Tektor is recommended; (2) the differential Tektor offers one instrument level control in vessels where a definite differential must be maintained between high and low points—applicable to situations in which span between high and low levels is approximately five feet; (3) the time delay Tektor controls the flow of material that is delivered in clumps, waves, or generally erratic.

Fielden Instrument Div. of Robertshaw-Fulton Controls Co., Phila., Pa.

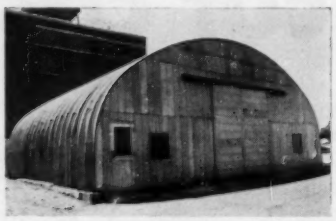
More data? Write or use card, p 171; list H-143

A new **6,000-lb gasoline-powered fork truck,** designated Model FG-60, features 144" maximum lift, extremely short turning radius, and low initial and maintenance cost. Two speeds forward and two in reverse, with top full-load travel speed of 7 mph at 1900 rpm.

Baker-Raulang Co., Cleveland, Ohio.

More data? Write or use card, p 171; list H-145

Designed to meet the storage and warehousing needs of the textile industry is a new **"straight-wall" prefabricated steel building,** featuring inexpensive, trussless construction. Can be erected in a matter of hours by as few as two operatives using simple nut and bolt fasteners. No foundation necessary other than simple concrete slab. Walls rise vertically to height of 9 ft to facilitate mechanized materials handling. No supports inside permits full utilization of floor space. Available in widths from 30 to 50 ft and in height from 12 to 18 ft. Length to fit particular needs. Fireproof and resistant to atmospheric moisture and fumes.



The Wonder Building Corp. of America, 30 N. LaSalle St., Chicago 2, Ill.

More data? Write or use card, p 171; list H-146

A new **magnetic counter** adds and subtracts. Flip switch up and it adds; flip it down and counter subtracts. May be actuated by any type of switch, relay, or photo-electric unit. Two of many possible applications: control engineering and stock control.

Veeder-Root, Inc., Hartford 2, Conn.

More data? Write or use card, p 171; list H-147

The Model LR Ultra Violet Unit is a very **compact ultra-violet radiation generator** for analytical and inspection work. Reveals invisible stains on fabrics and yarns. Useful for identification of fibers, determining mechanical and chemical damage to fibers.

Sela Electronics Co., 128 W. 48th St., New York, N. Y.

More data? Write or use card, p 171; list H-148

Now included as standard equipment on the Jacquard Knitting Machine Co.'s **automatic circular knitting machines** is a counter which is connected electrically with the stop-motion circuit. Counter is pre-set by the operator to the desired number of body lengths so that when the machine has produced the required number of body lengths, the counter mechanism automatically stops the machine.

Jacquard Knitting Machine Co., Inc., Philadelphia 24, Pa.

More data? Write or use card, p 171; list H-149

For scouring dyed or printed fabric a new modified alcohol sulfate, SIPEX 7W, is recommended. Features outstanding grease-emulsifying properties.

American Alcolac Corp., 3440 Fairfield Rd., Baltimore 26, Md.

More data? Write or use card, p 171; list H-150

Black-brown shades on cotton and rayon, with appreciably heavier and redder shades obtained on rayon, are produced with National Niagara Copper Black Brown when after-treated with copper-resin compounds. This non-dusting direct dye possesses moderate fastness to light, good fastness to perspiration, acid, and alkali; very good fastness to washing; excellent fastness to rubbing, sea water, and water.

National Aniline Div., Allied Chemical & Dye Corp. 40 Rector St., New York 6, N. Y.

More data? Write or use card, p 171; list H-151

Two new **small particle size nitrile latices,** designated as Chemigum Latex 236 and 246, were designed to upgrade physical properties of textiles, etc. Greater coverage and more intimate contact with individual fibers are made possible with the latices. No. 236 has a high nitrile content and is recommended for specialty applications where maximum oil resistance and toughness are required. No. 246 is a medium acrylonitrile polymer and can be used economically for more general applications.

Chemical Div., The Goodyear Tire & Rubber Co., Akron 16, Ohio.

More data? Write or use card, p 171; list H-152

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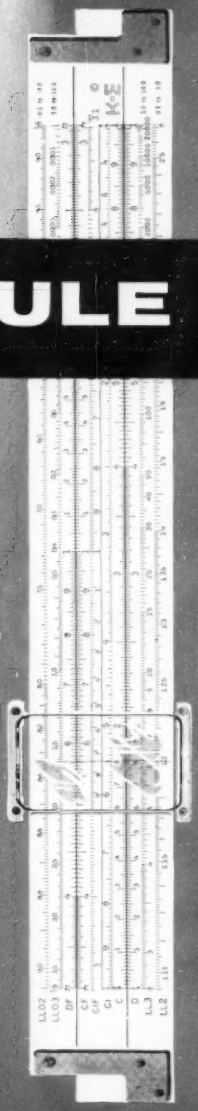

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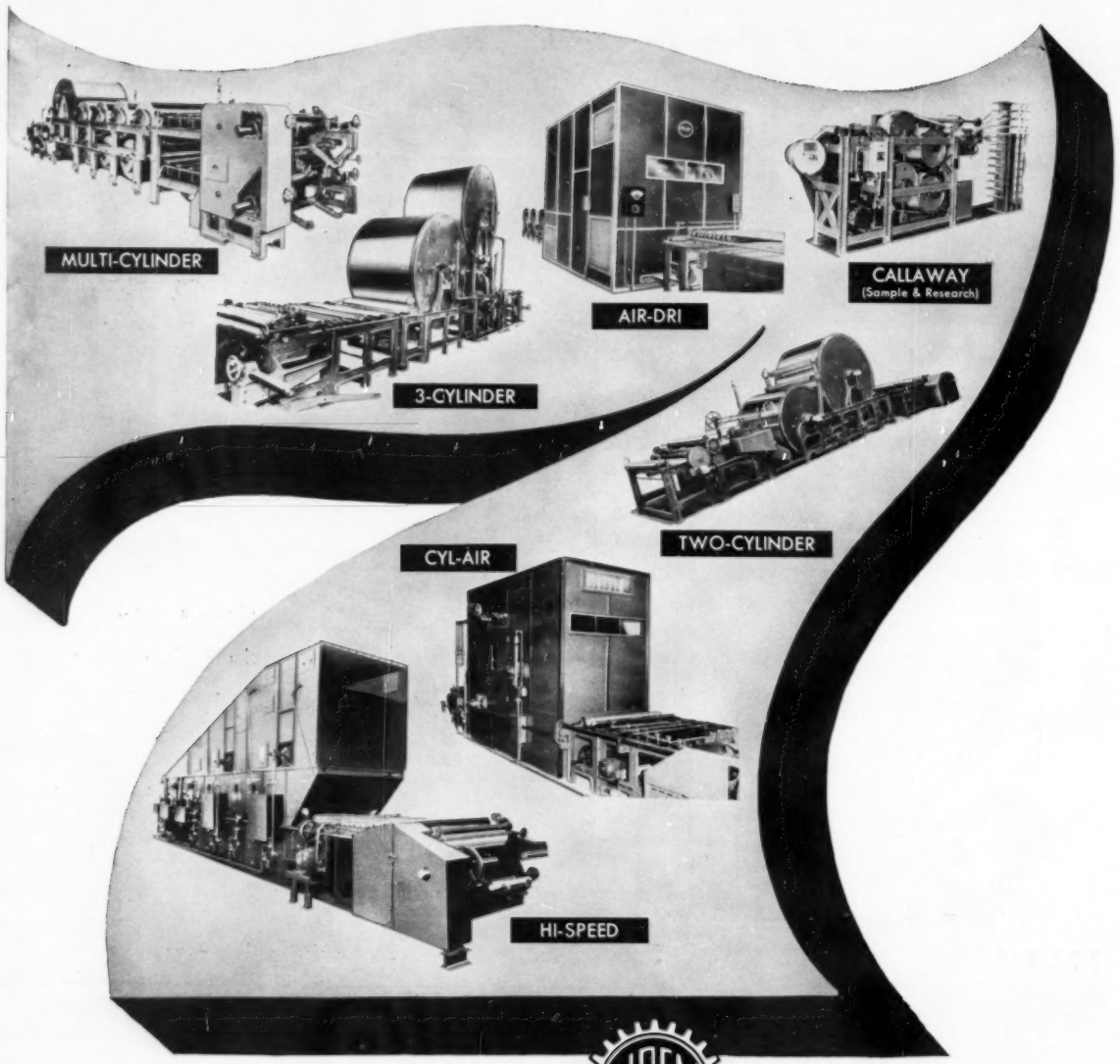

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8-1 Screening Catalog. Separator catalog features photos, drawings, specifications of equipment useful for screening purposes in textile mills. Complete data file accompanies catalog. Write Southwestern Engineering Co., 4800 South Santa Fe, Los Angeles 58, Calif.

8-2 Jenkins Catalog. Color catalog by Jenkins Metal Shops, Inc., describes their complete line and service to textile industry. Thorough listings and description. Write Jenkins Metal Shops, Inc., N. Marietta St., Gastonia, N. C.

8-3 Card Coilers. Brochure tells how Hunt complete card coilers and drawing frame conversion units cut card room operating costs. Pictures and description of units included. Write Hunt Loom and Machine Works, 200 Academy St., Greenville, S. C.

8-4 Textile Vacuum System. Color bulletin by Spin Sa Vac describes application of their vacuum system to drawing, roving and spinning processes, and for the removal of broken ends, fly or sliver. Complete diagrams and shots of typical installations. Write Spin Sa Vac Corporation, 1438 South Tryon St., Charlotte, N. C.

8-5 Wica Chemical Bulletins.—Bulletins describe in technical terms the various Wica Products for textiles. Issued each month for the benefit of industry, they are an excellent help in wet processing. To get on the mailing list write Wica Chemicals, Inc., P. O. Box 506, Charlotte, N. C.

8-6 Pneumafil Suction Cleaning Systems. Booklet describes types of Pneumafil Systems, gives details of new Collector Unit model C-4. New type LFC Pneumafil is also discussed. Diagrams, comparison charts and installation pictures included. Write Pneumafil Corp., Charlotte 8, N. C.

8-7 Flexloc Self-locking Nuts. Drawings illustrate locking action. Fasteners are unaffected by temperatures up to 550 Fahrenheit and come in regular heights and thinnut heights. Catalog contains complete information. Write Standard Pressed Steel Co., Box 582 Jenkintown, Pa.

8-8 Hydraulics for Textile Machinery. Vickers Oil Hydraulic Power and Control offers accurate control, automatic tension control, variable speed, low power requirement, overload protection and many other features. Booklet describes all. Write Vickers, Inc., 1036 Peachtree St., Atlanta, Ga.

8-9 Diamond Silicates in Textile Finishing. Compact color booklet gives uses in textile finishing of certain Silicotes made by Diamond Alkali Company. Complete chemical description and package sizes included. Write Diamond Alkali Co., 300 Commerce Building, Cleveland 14, Ohio.

8-10 Ball Bearing Trolleys. 20-page catalog by Link Belt describes entirely new line of ball bearing trolleys for overhead conveyors. Contains pictures, specifications charts and diagrams. Write Link-Belt Co., 307 North Michigan Ave., Chicago 1, Illinois.

8-11 Lubrication of Bearings. Booklet entitled "Lubrication and Maintenance of Ball and Roller Bearings" gives helpful list of do's and don'ts to prolong bearing life. Also includes valuable information on storage and handling of lubricants. Write New York & New Jersey Lubricant Co., 292 Madison Ave., New York 17, N. Y.

8-12 V-Drive Belts. The complete line of Maurey Mor-Grip Fractional Horsepower and Heavy Duty Multiple V-Drive Belts are described in new 24-page catalog. Write Maurey Manufacturing Corporation, 2907-23 S. Wabash Ave., Chicago 16, Illinois.

8-13 Air Conditioning. A new 20-page catalog, profusely illustrated, describes the American Blower line of central-station, cabinet air conditioning units. Three types of units are described. Write American Blower Corporation, Detroit 32, Michigan.

8-14 Ultrasonic Agitator. Bulletin describes the Acoustica Ultrasonic Vibrator for agitation, emulsification, dyeing, scouring, and bleaching. Costs and applications included. Write Acoustica Assoc., Inc., Shore Road, Glenwood Landing, L. I., New York.

8-15 Brine for Textile Industry. 32-page booklet on the Lixate Process replaces former booklet on making brine that has been a standard reference for years. Contains much more technical information. Write International Salt Co., Inc., Cranton, Pa.

8-16 Catalog of Needle Bearings. New catalog conveniently presents design, application and use data for five types of needle bearings. Actually an engineering short course on bearings with visual index units. Write the Torrington Co., Torrington, Connecticut.

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11. **"WHERE DID THEY HIT PAY DIRT?"**—Booklet describes how many manufacturing concerns have come South and why they found it profitable. Gives industrial advantages of the Southeast.—CENTRAL OF GEORGIA RAILWAY, INDUSTRIAL DEVELOPMENT DEPARTMENT, 501 Rhodes Haverty Bldg., Atlanta 3, Georgia.

15. **NEW INDUSTRIAL FIBER**—Technical bulletin now available on Fortisan-36, new industrial fiber by Celanese. Uses text, charts and diagrams to present technical properties, characteristics and recommendations for processing.—TEXTILE SALES DEPARTMENT, CELANESE CORPORATION, Charlotte, N. C.

17. **A FAIR DAY'S PAY AND IN RETURN A FAIR DAY'S WORK**—8-page booklet outlining the services offered to industry for the proper utilization of labor, material and equipment, and the resulting advantages for both labor and management.—AMERICAN ASSOCIATED CONSULTANTS, INC., 250 Park Ave., New York, N. Y.

22. **THE WONALANCET WAY**—Is the title of a editorial booklet published five times a year and deals with current problems which appear worthwhile at the time they are written.—WONALANCET COMPANY, 128 Burke St., Nashua, N. H.

PLANT & PLANT MAINTENANCE . . .

100. **MOTION CONTROL WITH SILENTBLOC**—Brochure describes advantages of General Tire Company's Silentbloc method of protecting delicate instruments, reducing machine vibration, etc.—THE GENERAL TIRE CO., Industrial Products Div., Akron, Ohio.

102. **"TANK TALK"**—Sixteen-page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels, cylinders, along with helpful technical data. Also a list of what a few of the cotton mills, etc., said.—R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

103. **HUMIDIFICATION, EVAPORATIVE COOLING** — Bulletins available displaying AMCO automatic self-cleaning atomizers, controls, and evaporative cooling equipment.—AMERICAN MOISTENING CO., 260 W. Exchange St., Providence, R. I.

105. **CASTERS AND WHEELS** — Catalog gives complete descriptions on full line of industrial casters and wheels. Features patented "LOCKWELD" Steel Casters Without A Kingpin" both Single and Double Ball Race.—THE FAIRBANKS CO., 393 Lafayette St., New York 3, N. Y.

108. **FINNELL COMBINATION SCRUBBER-VAC**—Illustrated literature gives complete specifications and describes various methods of combination-machine-scrubbing, including method recommended for cleaning oily floors.—FINNELL SYSTEMS, INC., 1300 East St., Elkhart, Indiana.

110. **UNBRAKO STANDARDS** — Catalogue by Standard Pressed Steel Co. describes in pictures and text the company's line of Unbrako precision threaded fasteners. Several applications of each product are indicated in line drawings to suggest hundreds of others and to stimulate the imagination of design engineers. — STANDARD PRESSED STEEL CO., Jenkintown, Pa.

111. **CERTIFIED CLIMATE AIRCHANGER SYSTEM**—Bulletin describes Certified Climate Airchanger System as used with direct humidification for partial or complete air conditioning.—PARKS-CRAMER CO., Fitchburg, Mass.

112. **HARDWOOD FLOORING** — Booklet entitled "Specialist in Manufacturing of Hard Maple Flooring for textile plants."—CONNOR LUMBER & LAND COMPANY, P. O. Box 813, Wausau, Wisconsin.

113. **COTTON MILL EQUIPMENT**—This book traces pictorially the steps in processing raw cotton into finished cloth. It shows the equipment needed for all phases of production, as well as containing a "Useful Information" section on Power Factor Correction, Lighting, Circuit Protection, etc.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

114. **PENETRATING WOOD FINISH** — Bulletin gives applications, uses and application specifications of floor seals for textiles.—E. I. DU PONT DE NEMOURS & CO., INC., Finishes Division, Wilmington, Delaware.

115. **FOAMGLAS**—Illustrated brochure features information on how the use of Foamglas cellular glass insulation solved the severe insulating problems of leading users.—PITTSBURGH CORNING CORP., One Gateway Center, Pittsburgh 22, Pa.

118. **STOP CORROSION**—Details on speed Rex paint for metal, wood and concrete maintenance solving condensation problems.—TRUSCON LABORATORIES, Box 69, Milwaukee Junction, P. O. Dept. T, Detroit 11, Mich.

117. **CLEANING SYSTEMS** — Booklet entitled "Certified Climate and Cleaning Systems" gives latest information on system. Products and uses fully discussed with two story layout of Certified Climate central station air conditioning system.—PARKS-CRAMER CO., Fitchburg, Mass., and Charlotte, N. C.

118. **LIQUIDATION INFORMATION**—Information available on how to profitably dispose of mill properties being liquidated. Tells how Comer will buy, sell and relocate industry in your former site.—COMER MACHINERY CO., 684 W. Peachtree St., Atlanta, Ga.

127. **SOLENOID VALVES** — Bulletin "Y" lists sizes from 1/3 inch to 3 inches; valves for normally open or closed service; stainless steel or Jenkins disc seats; three-way solenoid valves, etc.; typical installations.—THE JOHNSON CORP., Three Rivers, Mich.

131. **"AIR PROCESSING"**—Set of three bulletins showing real meaning of the term, where it can be used, the requirements for a successful system, etc.—J. O. ROSS ENGINEERING CORP., 444 Madison Ave., New York 22, N. Y.

135. **COLOR CONDITIONING**—Booklet illustrated in color describes how Du Pont color conditioning puts color to work for you. Many ideas on safety brought out which color can aid.—E. I. DU PONT DE NEMOURS & CO., INC., Finishes Div., Wilmington 98, Delaware.

138. **METAL CONVEYOR BELTS**—Recent catalog describes and illustrates Ashworth's entire range of manufacture, including the new Flat Wire Belt design and application, along with their Woven Wire constructions and Positive Drive Chain Edge belts.—ASHWORTH BROS. INC., Metal Products Div., Fall River, Mass.

140. **FUNCTIONAL GLASS BLOCK DATA** — Folder shows in detail daylighting function of Light-directing and Light-diffusing Functional Glass Blocks.—PITTSBURG CORNING CORP., 307 4th Ave., Pittsburgh 22, Pa.

150. **RIHCO HUMIDIFIERS AND COOLING SYSTEMS**—Bulletin describes new atomizers with construction lessening air consumption in humidifier systems, evaporative cooling systems.—ALDRICH MACHINE WORKS, Greenwood, S. C.

151. **INDUSTRIAL BRUSHES**—Illustrated booklet of industrial brushes featuring textile usage on shears, printing machines—also flock, raising and cylinder brushes.—M. W. JENKINS SONS, INC., 444 Pompton Ave., Cedar Grove, N. J.

153. **LAMINATED TEXTILE PLASTICS**—Booklet by Synthane Corporation shows variety, application, and advantages of laminated plastic parts and supplies for the textile industry.—SYNTHANE CORPORATION, Textile Division, Oaks, Pa.

161. **AUTOMATIC CLEANING EQUIPMENT**—Complete booklet by American MonoRail shows working details and advantages of the Tri-Rail Cleaner, a great improvement over the original unit.—AMERICAN MONORAIL CO., 13107 Athens Ave., Cleveland 7, Ohio.

162. **MODERN METHODS OF TEXTILE FLOOR MAINTENANCE**—Illustrated treatise on the history of floor cleaning in textile plants and a detailed description of new methods for reducing floor cleaning costs as well as preserving textile mill floors.—G. H. TENNANT COMPANY, 2530 N. Second St., Minneapolis 11, Minn.

173. **BLOWERS AND EXHAUSTERS** — Bulletin No. 2014-D describes types "E" and "RE" electric blowers and exhausters. Uses and full description of each with detail drawings.—BUFFALO FORGE CO., 490 Broadway, Buffalo 5, N. Y.

174. **PAINT STRIPPING BOOKLET**—Illustrated booklet providing helpful data on latest materials and methods for simplified stripping of paint. Methods described include: (1) steam gun; (2) hot flow-on; (3) cold spray; and (4) tank immersion.—OAKITE PRODUCTS, INC., 22 Thames St., New York 6, N. Y.

176. **STOKERS AND BOILERROOM EQUIPMENT**—For information on boilerroom problems, improvements and apparatus.—McBURNEY STOKER CO., 2110 Peachtree Rd., Atlanta, Georgia.

181. **AIR FILTRATION**—Bulletin 234 describes and illustrates the Auto-Airmat, which is the Automatic Dry-Type air filter. Principle of operation, performance characteristics, construction and installation fully discussed.—AMERICAN AIR FILTER COMPANY, INC., 375 Central Ave., Louisville 8, Ky.

POWER TRANSMISSION, MOTORS, BELTING, LUBRICATION . . .

201. **V-BELT DRIVE CATALOG**—This handy, pocket-sized catalog helps you make quick and easy selections of any Dayton V-Belt Drive from 1 to 1000 HP. Contains many concise, accurate drive tables, diagrams, and other important engineering data.—DAYTON RUBBER CO., Dayton, Ohio.

203. **TREADED LEATHER BELTING**—This 16-page booklet describes Houghton's line of patented, specially treaded leather belting for all types of power transmission. Booklet includes valuable engineering and maintenance section.—E. F. HOUGHTON & CO., Philadelphia, Pa.

208. **CUTLER-HAMMER MOTOR CONTROL** — Booklets describe the combination starters for the textile industry, for roving frames and spinning frames, loom switch and Cutler-Hammer Motor Control for textile cards.—CUTLER-HAMMER, 315 N. 12th St., Milwaukee, Wisconsin.

209. **STEEL PULLEYS**—Pictorial review of American Steel Pulleys, their manufacturing processes and some of their end uses. Textile pulleys are featured.—AMERICAN PULLEY CO., 4200 Wissahickon Ave., Philadelphia 29, Pa.

212. **GATES TEXTILE ACCESSORIES** — Handy pocket-size catalog BBM-T, fully illustrated, gives specifications of Gates textile accessories including pickers, lug straps, check straps, cone belts, evener belts, harness straps, take-up roll covering, and others.—THE GATES RUBBER COMPANY, 1001 Broadway, Denver 17, Colo.

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216. LUBRICATION CHART—Wall chart contains lubrication recommendations for many industrial needs. Chart covers applications such as hydraulic systems, spindles, air compressors, reduction gears, electric motors, oven conveyors and other general uses. —LINCOLN ENGINEERING CO., 5701 Natural Bridge Ave., St. Louis, Mo.

217. DYNAMIC RESPONSE D-C MOTORS—Illustrated bulletin describes the new Reliance Super 'T' Line D-c Motors with Dynamic Response. Information is included on speed ranges, acceleration rates, enclosures, dimensions and selection data.—RELIANCE ELECTRIC & ENGINEERING CO., 1088 Ivanhoe Road, Cleveland 10, Ohio.

218. BALL BEARINGS FOR TEXTILE MACHINERY—A 40-page catalog illustrating Fafnir Ball Bearing units for replacement or new applications in all phases of textile processing.—THE FAFNIR BEARING CO., New Britain, Conn.

220. ELECTRICAL AND LUBRICATING DEVICES—Catalog contains complete and descriptive data on all Trico electrical and lubricating devices. Profusely illustrated, it contains list price information.—TRICO FUSE MFG. CO., North 5th at West Chambers, Milwaukee 12, Wisconsin.

222. AUTOMATIC PRODUCTION CONTROL—Booklet by Reeves Pulley Company, shows application of many automatic processes and controls to the textile industry. Well illustrated, it contains engineering data quite useful to anyone interested.—REEVES PULLEY COMPANY, Columbus, Indiana.

229. DODGE GENERAL POWER TRANSMISSION MACHINERY—Catalog describes various types of power transmission apparatus by Dodge. Gives specifications, sizes, applications, and prices. Very comprehensive.—DODGE MANUFACTURING CORP., Mishawaka, Indiana.

232. "VARI-PITCH" SHEAVE BULLETIN—Stationary and motion control of "Vari-Pitch" sheaves for speed variation up to 76 per cent by means of pitch diameter adjustment, capacities 1 to 600 HP are described in new bulletin.—ALLIS-CHALMERS MFG. CO., Milwaukee 1, Wisconsin.

235. JOHNSON LEDALOYL BEARING BRONZE—Illustrated booklet telling the complete story of Johnson Ledaloyl Bronze, the newest development in self-lubricated bronze for textile bearings and bushings.—JOHNSON BRONZE COMPANY, New Castle, Pa.

237. MOTOR CONTROL—Brochure gives description and engineering data on the Cutler-Hammer Motor Control for roving and spinning frames. Uses listed and advantages discussed.—CUTLER-HAMMER INC., Milwaukee, Wisc.

238. TEXTILE LEATHERS CATALOG—Catalog by J. E. Rhoads & Sons gives characteristics and advantages of Rhoads "Tannate" leathers. Complete line is listed and described, and tips for correct installation. Copiously illustrated.—J. E. RHOADS & SONS, 2100 W. Eleventh St., Wilmington 99, Del.

253. TEXTILE LUBRICATION—"Lubrication," a magazine published by the Texas Co., is available. Shows methods and means of lubricating chain drives in very comprehensive form.—THE TEXAS CO., 135 East 42nd St., New York 17, N. Y.

256. METERED LUBRICATION—Bulletin 6A has 12 illustrated pages showing how central lubricating systems are applied to combers, roving frames, winders, knitters, looms, etc.—BIJUR LUBRICATING CORP., Rochelle Park, N. J.

265. SERVICE PROCEDURE FOR BALL BEARINGS—A helpful manual for maintenance engineers giving helpful hints on disassembly, inspection, cleaning, lubrication, and replacement of ball bearings in any mechanism.—NEW DEPARTURE, DIVISION OF GENERAL MOTORS CORP., Bristol, Conn.

INSTRUMENTS, STEAM SPECIALTIES . . .

301. JOHNSON ROTARY PRESSURE JOINTS—Bulletin describing the rotary pressure joint which requires no packing, no lubrication and no adjustment, giving installation and maintenance instruction, types, sizes, dimensions and prices.—THE JOHNSON CORP., Three Rivers, Mich.

302. TEXTILE INSTRUMENTATION—New booklet gives details on Brush Lapcheck, Brush Tension Analyzer, Brush Imperfection Counter, and Improved Uniformity Analyzer. Pictures uses and capacities of each machine discussed.—BRUSH ELECTRONICS CO., 3405 Perkins Avenue, Cleveland 14, Ohio.

313. "THE FAIRBANKS VALVE COMPARISON CHART"—New reference manual important in specification, ordering, and using of bronze and iron-body valves.—THE FAIRBANKS COMPANY, 393 Lafayette Street, New York 3, N. Y.

314. MOISTURE CONTENT CONTROL—Bulletin F-3156 giving details of features and benefits of moisture equipment control for slashers and textile applications.—BARBER-COLMAN CO., Rockford, Ill.

321. RED-RAY BURNERS — Bulletin describing use of Red-Ray Burners in preheating and partial drying to increase capacity of frame.—RED-RAY MFG. CO., 445 W. 45th St., New York, N. Y.

324. STROBOTAC — Informative reprint, "Strobotac Boosts Efficiency in Woolen and Synthetic Mills."—GENERAL RADIO CO., Cambridge 39, Mass.

337. COUNTING DEVICES—Catalog of Trumeter's complete line of counters for every application where counting, measuring or registering is required. Colored pictures illustrate each application.—TRUMETER COMPANY, 1265 Broadway, New York 1, N. Y.

339. NEW LUBRICATED PLUG VALVES—Illustrated booklet by The William Powell Co. features a new line of semi-steel and steel lubricated plug valves. Advantages include quick and positive shut off.—THE WILLIAM POWELL COMPANY, 2525 Spring Grove Ave., Cincinnati 22, Ohio.

CARDING, SPINNING, WINDING . . .

401. LUMMUS DUSTLESS, STEEL BLENDING FEEDERS—Bulletin describing automatically closing, positively locking door on feeders to prevent overloading, choking.—ALDRICH MACHINE WORKS, Greenwood, S. C.

402. AUTOMATIC CLEANING AND OVERHEAD HANDLING FOR TEXTILE MILLS—24-page bulletin describing the American Monorail Automatic Cleaner for preventing accumulation of lint on spinning, twisting, winding and warping machines. Also for cleaning monitors and card room ceilings.—THE AMERICAN MONORAIL CO., Cleveland, Ohio.

403. TRAVELING CLEANERS—4-page bulletin describes the improved Parks-Cramer Frame and Room Cleaners including the Underframe and Floor Sweepers.—PARKS-CRAMER CO., Fitchburg, Mass.

404. LAPLESS ENDLESS SPINNER—Bulletin and full information will be supplied on lapless endless spinner and coning belting.—TON-TEX CORPORATION, 31 Columbus Ave., Englewood, N. J.

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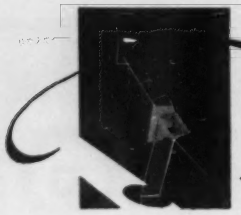
Jenkins was first with the now famous Dynamically Balanced Cylinder that did so much to improve yarn quality on today's high speed frames. By reducing vibration to the vanishing point, these cylinders not only run smoother and longer; they lower overall production costs by greatly reducing wear on all moving parts.

And remember, your tests are invited on Jenkins Cylinders. They are *positively guaranteed* as represented.

You can benefit from our modern facilities and specialized know-how immediately, because you pay no more for Jenkins superior cylinders and card screens.

JENKINS QUALIFIED ENGINEERING
METAL SHOPS, INC., GASTONIA, N. C.

40 YEARS CONTINUOUS SERVICE TO THE TEXTILE INDUSTRY



Wica Chemicals
INCORPORATED
DYESTUFFS • INDUSTRIAL CHEMICALS • TEXTILE SPECIALTIES • LATICES • ADHESIVES
P. O. BOX 506 PHONE FR 6-6514 OLD CONCORD RD.
Charlotte, North Carolina

Dear Jim:

Here is a snapshot of my boys. I know that you would like to see the men who solved your problems by producing that special polyvinyl acetate for your specific need. So many people have heard that we do attack each mill's problem individually and have made so many modifications in the emulsion polymers and copolymers for natural and synthetic yarns and fabrics, that we are building a new plant to accommodate the terrific demands.

I remember how skeptical some folks were when we began the individual approach. On the surface it did seem foolish. I heard so many complaints from plant supervisors and dye chemists who had tried one company after another and product after product without success, that I just had to tailor a specific product for the specific need. Now these users are certain that each product will have the same standards each time it is used. The peace of mind in this one fact means a lot, to say nothing of the actual savings.

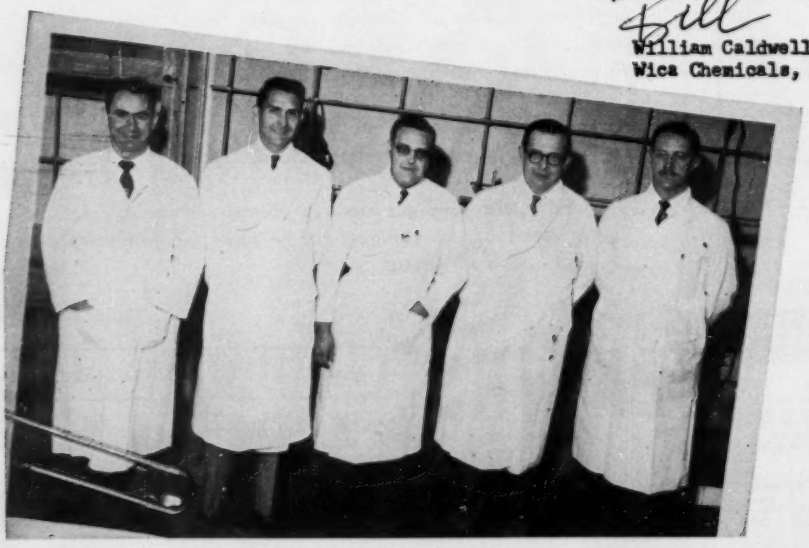
As soon as the new plant is completed, I'll send you another snapshot. We're really proud of our progress and success that enables us to build and expand. The credit should go to you and the other mills who called on us for the answer and got the right one.

I'm looking forward to the opportunity of helping you with any other problems that you may have with your own new developments, whether in the fields of latices or resin emulsions.

Sincerely,

Bill

William Caldwell
Wica Chemicals, Incorporated



HELPFUL BOOKLETS FREE!

408. CARD GRINDING INFORMATION—Outlines care of grinders, instructions on speed to run grinders, amount of oil to add to machine and other pertinent information.—S. S. ROY & SON CO., Worcester, Mass., and Charlotte, N. C.

411. SHEET METAL WORK—Pamphlet describes spinning cylinders, aspirators, card screens, sheet metal specialties.—GASTONIA TEXTILE SHEET METAL WORKS, INC., 222 East Long Avenue, Gastonia, N. .

412. SERVICE FOLDER—Folder covers textile metal products including spinning and twisting cylinders, card screens, etc.—JENKINS METAL SHOPS, INC., Gastonia, N. C.

413. HIGH SPEED, AUTOMATIC QUILLER—Color booklet by Schlafhorst describes the "Autocoper" Automatic Quiller. Gives advantages, space requirements, etc.—TERRELL MACHINE CO., INC., Charlotte, N. C.

414. WORSTED SPINNING—Bulletin explaining and illustrating Saco-Lowell's new system for worsted spinning, from top to yarn in five economical and efficient stages.—SACO-LOWELL SHOPS, 60 Batterymarch St., Boston 10, Mass.

415. DOUBLER-TWISTER FOR LARGE PACKAGES—Bulletin describing two new machines producing straight or tapered top bobbins. Suitable for filament or spun yarns up to three pound capacity. Individual thread stop motion fully discussed.—FLETCHER WORKS, INC., Philadelphia, Pa.

416. THE BRIEF SAGA OF THE RING TRAVELER—An interesting history relative to the ring traveler, which is in reality the basis of the spinning frame. John Thorpe's invention of ring traveler, the development of the spindle, and the invention of Rabeth's Bolster type spindle are covered.—NATIONAL RING TRAVELER CO., Pawtucket, R. I.

417. FEATHERTOUCH DRAFTING—Booklet describes in detail with pictures the most uniform drawing, the strongest drawing with the highest production per frame at the lowest cost.—IDEAL INDUSTRIES, INC., Bessemer City, N. C.

419. TEXTILE APRONS—Illustrated folder showing the steps in manufacture of genuine leather aprons for all types of long draft spinning and card room machinery.—TEXTILE APRON COMPANY, East Point, Ga.

421. CARD ROLL COVERS—Brochure describing The Davis Seamless Roll Covers. Lists advantages, specifications and offers free trial.—THE TEXT' LABORATORIES, P. O. Box 1003, Gastonia, N. C.

422. WARPER BEAMS—Folder describes the high speed for rayon tire cord, cotton warper beams, cast aluminum end supports and large diameter heads.—U. S. BOBBIN & SHUTTLE CO., Lawrence, Mass.

423. SPINDLE OILING MACHINE — Information available on new Spindle Oiling Machine. Features include filter system to clean oil for reuse; smaller size for narrow aisles.—WICACO MACHINE CORP., 4800 Stenton Ave., Wayne Junction, Philadelphia 44, Pa.

424. GREASE-SEALED, ANTI-FRICTION ROLLS—Booklet contains description and engineering drawings of the Cole grease-sealed, anti-friction rolls. Also contains information on dual apron controlled drafting units.—COLE ENGINEERING CORP., P. O. Box 153, Columbus, Ga.

425. HANDY REFERENCE TABLES — Folder showing spinning traveler speeds, sizes of ring flanges, etc.—VICTOR RING TRAVELER CO., Providence, R. I., and Gastonia, N. C.

426. UNIRAIL UPTWISTER — Bulletin describes Universal Winding's headless package or bobbin take-up Unirail Uptwister which gives you higher yarn quality and better packages at faster speeds and lower costs, according to the bulletin. Well illustrated with advantages discussed.—UNIVERSAL WINDING COMPANY, P. O. Box 1605, Providence, R. I.

427. PNEUMACARD—Booklet describes this Pneumafil system for wool cards giving features and how it operates complete with illustrations.—PNEUMAFIL CORPORATION, 2516 Wilkinson Blvd., Charlotte 8, N. C.

429. BETTER FLYER AND SPINDLE EFFICIENCY—Entertaining booklet by Ideal Machine Shops gives facts about Flyers and Spindles which have helped many mills gain more efficient production, better yarn quality.—IDEAL MACHINE SHOPS, INC., Bessemer City, N. C.

432. PRECISION TEXTILE WINDING — Bulletin on Kidde Tensions and Density Control for winding rubber cones.—WALTER KIDDE & CO., INC., Belleville, N. J.

435. DOUBLE DECK TWISTERS—Bulletin describes Jumbo (8 oz. to 16 oz. headless or take-up spool packages) and Acme (up to 10 oz. packages) models for high speed twisting of silk, rayon, nylon, etc., to finest deniers.—U. S. TEXTILE MACHINE CO., Scranton 8, Pa.

437. MAINTENANCE INFORMATION FOR YOUR SCOTT TESTER—Booklet containing maintenance data for calibration of Scott Testers, clamps for testers, gear-box lubrication, and recording.—SCOTT TESTERS, INC., Providence, R. I.

438. HEADLESS PACKAGE TWISTER ELIMINATES REDRAWING—Literature shows high-speed Face Drive Twister for accurately building tapered or straight-end headless packages which go direct to quilling or warping without redrawing.—U. S. TEXTILE MACHINE CO., Scranton 8, Pa.

445. ROLLER BEARING SPINDLES—Illustrated booklet showing various types of Marquette Roller Bearing Spindles. The unique full-floating footstep bearing is pictured in cut-away views, and its advantages are described.—THE MARQUETTE METAL PRODUCTS CO., 1145 Galewood Ave., Cleveland, Ohio.

447. CONE WINDER—Form A95 describes the Foster Model 102 winder which produces the Foster knitting cone for spun yarns, warping cones and tubes for dyeing and twister supply.—FOSTER MACHINE COMPANY, Westfield, Mass.

453. EVENNESS TESTER—Folder explaining how this Tester takes the guess out of quality control and each processing step from carding through spinning.—USTER CORPORATION, Charlotte, N. C.

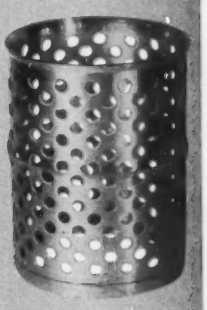
458. CONICAL RINGS AND FLYERS—Special data available on the Herr conical rings and flyers.—HERR MANUFACTURING CO., INC., 318 Franklin St., Buffalo 2, N. Y.

459. TENSION CONTROLS — Folder describing tension compensation and automatic tension controls. Three models—Standard, Warp, and Double Disc fully described with specific application.—WALTER KIDDE & CO., INC., Belleville 9, N. Y.

461. PRECISE WIND MACHINE—Form A-92 describes the Foster Model 75 widely used for winding straight or pineapple cones and tubes of rayon, nylon and other filament yarns.—FOSTER MACHINE COMPANY, Westfield, Mass.

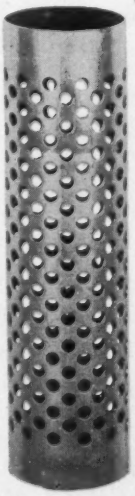
462. TEXTILE MACHINERY PARTS CATALOG—A 24-page illustrated catalog describing the complete line of Dayco and Thorobred textile machinery parts including Cots, Aprons, Loop Pickers, Lug Straps, etc. —DAYTON RUBBER CO., Dayton, Ohio.

A New and Better Stainless Steel Dye Sleeve for B-C Winders



The heavier gauge stainless steel used in this new sleeve supplies its own rigidity and eliminates ribbing. This permits greater hole area and assures much faster dye penetration. Beaded and flared bottom prevents yarn slippage. This simplified construction saves up to 15% in initial cost. Greater strength gives longer service.

All sleeves are perfectly sized for roundness and the holes are evenly spaced for uniform dye penetration. Ends are 100% level and rounded to prevent snagging. Write today for samples and quotations.



Several hundred thousand sleeves of this type are now giving superior service on Foster, Abbott, and Universal Winders.

TOOL SERVICE ENGINEERING CO.
309 W. Crowell St. Monroe, N. C.

*A **cure**, not a treatment, for Pollution Problems...*

This is the first in a series of advertisements based on a technical paper by B. W. Dickerson, Sanitary Engineer, Hercules Powder Company. A complete copy of the report or additional technical data on CMC Warp Size can be obtained by writing directly to Hercules.

If finishing mill wastes cannot be dumped into nearby waters in their present form and the cost of treatment is prohibitive, what is the answer? Many waste engineers have found that going to the source of the trouble can correct the situation and eliminate the need for a large capital expenditure for sewage plant facilities.

In a typical finishing plant, a percentage breakdown of the BOD (Biochemical Oxygen Demand) shows that the desizing operation is the obvious "villain". Up to 60 per cent of BOD pollution is a result of desizing, with dyeing and finishing contributing 30 to 40 per cent and bleaching about 10 per cent.

Years of preliminary study, followed by actual use on a production scale, have demonstrated that the introduction of proper amounts of CMC Warp Size in the sizing formulation can cut desizing pollution by as much as 75 to 85 per cent. Such a reduction of pollution would permit many mills to conform to abatement regulations without the need for construction and operation of a waste treatment plant. For mills with more severe pollution problems, the use of CMC Warp Size can reduce the cost and operating expense of treatment units as much as 50 per cent.

Formulations composed of two parts starch and one part CMC Warp Size provide adequate sizing at 6 to 8 per cent add-ons. In many instances, this much lower add-on will reduce the amount of water required in desizing by as much as 50 per cent. The presence of water soluble CMC Warp Size in the formulation can eliminate the need for the use of enzymes, greatly speeding and simplifying the desizing process.

VC55-5

Virginia Cellulose Department

HERCULES POWDER COMPANY

INCORPORATED

903 Market St., Wilmington 99, Delaware

HELPFUL BOOKLETS FREE!

467. CARD CLOTHING—8-page booklet by Benjamin Booth Company describes Strip-O-Matic Card Clothing and its advantages.—BENJAMIN BOOTH COMPANY, Allegheny Avenue & Janney Streets, Philadelphia, Pa.

469. SHORT CUT TO STAPLE FIBER SPINNING—Color brochure shows the ten steps in operation of the Turbo Tow Stapler, gives technical details and diagrams.—TURBO MACHINE COMPANY, Lansdale, Pa.

471. FACTS ABOUT YOUR FLYERS AND SPINDLES—Booklet by Ideal Machine Shops shows how smooth Flyer and Spindle operation can help produce higher and more efficient output, good quality yarn, minimum wear, and larger bobbins.—IDEAL MACHINE SHOPS, Bessemer City, N. C.

472. TWISTING MACHINERY — Bulletin gives outstanding features, specifications facts and useful information on Novelty Yarn Twisters for Cotton, Silk, Worsted and Rayon Yarns.—COLLINS BROTHERS MACHINE COMPANY, 647 Roosevelt Ave., Pawtucket, R. I.

474. BALL BEARING COMB BOXES—Southern States Equipment Corp. offers literature on their famous C-1 Ball Bearing Comb Boxes. Description, working principle, cut-away views shown.—SOUTHERN STATES EQUIPMENT CORP., Hampton, Ga.

475. TEXTILE ROLL COVERINGS AND MILL SUPPLIES—Color booklet by Armstrong shows and describes their complete line of textile roll coverings, including also loom supplies, mill supplies, roll covering for cotton, silk and synthetic and woolen and worsted systems. An excellent guide book.—ARMSTRONG CORK CO., Industrial Div., Lancaster, Pa.

476. TEXTILE FIBER OPENER FOR COTTON, SYNTHETICS, WOOL—New brochure by Cen-Tennial Cotton Gin Co. gives complete data on the Cen-Tennial Opener which incorporates improvements on the original SRRL Opener. Complete operating procedure is described.—CEN-TENNIAL COTTON GIN CO., Columbus, Ga.

478. TIPS ON CARDING PROCEDURE—Monthly bulletin by Ashworth Brothers includes many useful tips and advice on carding operation, maintenance and care and is available to anyone interested. Bulletin is a reprint of section appearing on green paper in this issue.—ASHWORTH BROTHERS, Fall River, Mass.

WEAVING, SLASHING . . .

500. LUG SUPPORT HANGERS—Information now available from D & J Manufacturing Co. giving details, advantages and prices of their "Holdfast" lug support hangers.—D & J MANUFACTURING CO., P. O. Box 1281, Rome, Georgia.

501. LOOMS—An accordion type folder is available entitled "Unfolding to You the World's Largest Line of Looms." Information on all types fully discussed.—CROMPTON & KNOWLES LOOM WORKS, Worcester 1, Mass.

502. COUNTING AND MEASURING DEVICES—Condensed textile catalog illustrating and describing pick counters, hank counters, cut meters, measuring counters. Wide range of counting devices for production recording on all types of textile machinery.—VEEDER-ROOT, INC., Hartford, Conn.

503. WEAVER'S KNOTTER—A catalog on the Boyce Weaver's Knotter giving a few instructions as to its use, recommendations as to the proper type knotter for the various types of yarns, and the spare parts that go to make up the knotter.—A. B. CARTER, INC., Gastonia, N. C.

504. LOOM SUPPLIES—Literature describing complete line of straps, strapping, pickers, dobby cords, sticks, binders, bumpers, brake lining and allied products.—E. H. JACOBS NORTHERN DIV., THE BULLARD CLARK CO., Danielson, Conn.

505. INNOVATION IN TEXTILE DRYING—Booklet by J. O. Ross gives details on Steam or Gas "Hot Air" Slasher for high speeds at low cost.—J. O. ROSS ENGINEERING CORP., 444 Madison Ave., New York 22, N. Y.

506. SLASHING HINTS—A 20-page booklet offering helpful hints on warp sizing. Subjects: Size cooking equipment, section beam tension, sizing selvages, cooking, use of split rods, weighing for the mix, tips on cooking equipment, storage in kettles, etc.—SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga.

508. LOOM PRODUCTION CHARTS—Convenient celluloid card showing yards per loom per week of 40 hours at various loom speeds.—RALPH E. LOPER CO., Greenville, S. C.

510. CONTROLLED SIZING—Brochure in color describes the legend, operation and specification of the new Griffin Size Machine. Features most important basic improvements in size machines in many years.—IRA L. GRIFFIN & SONS, P. O. Box 1576, Charlotte, N. C.

511. ALUMINUM BEAMS—Catalog No. 1-21 describes Hayes magnesium and aluminum specialties for the textile industry. Illustrates this company's beams that are one-third the weight of conventional types.—HAYES INDUSTRIES, INC., Jackson, Mich.

514. THE STORY OF STARCHES—Semi-technical booklet tells the story of starches and information on how they are produced, the creation of new specialty starches, the unique "man-made" starch derivatives, and the handling of starches.—NATIONAL STARCH PRODUCTS, INC., 270 Madison Avenue, New York 16, New York.

515. WARPING, SLASHING, WEAVING ARNEL YARNS—8-page booklet preliminary information on Arnel Triacetate Yarns.—CELANESE CORP. OF AMERICA, Textile Division, Box 1414, Charlotte, N. C.

517. LOADING SYSTEM—Bulletin 417, on pneumatic loading system for Saco-Lowell slasher size box squeeze rolls, contains installation photo, features, specifications, and prices.—THE FOXBORO COMPANY, Foxboro, Mass.

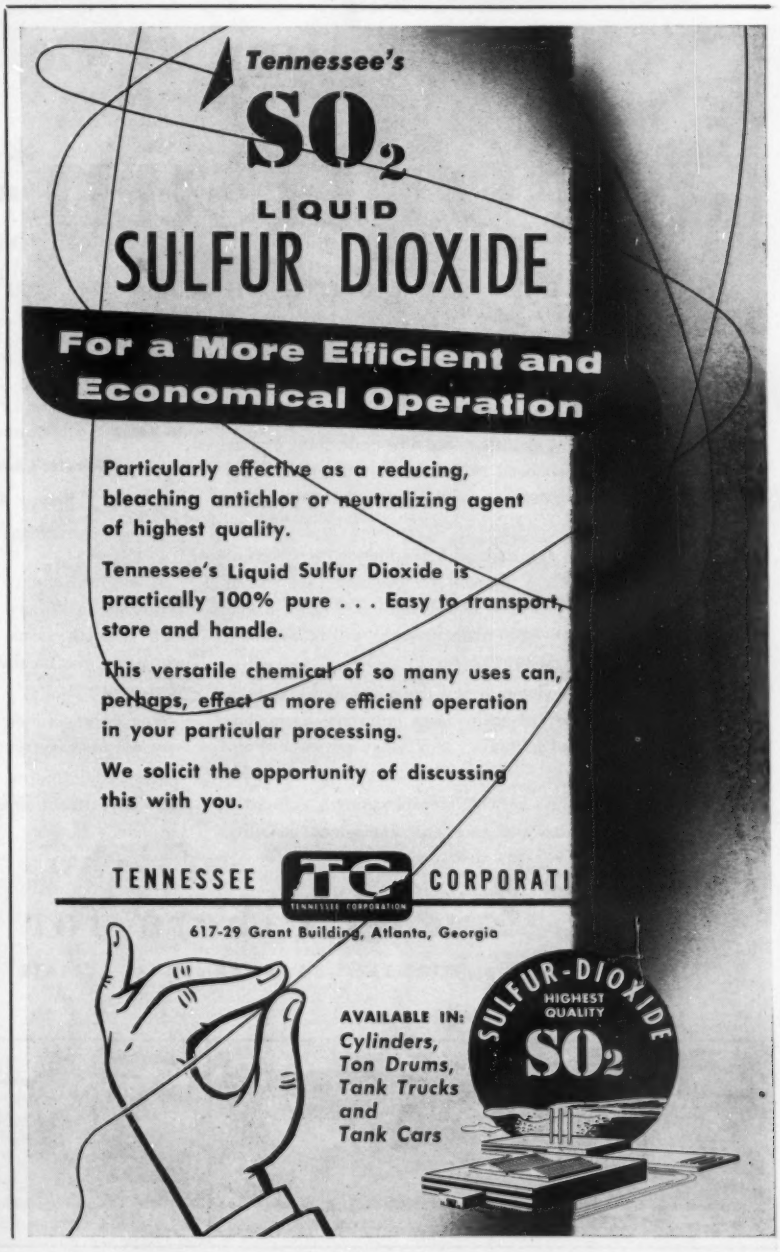
521. STEEL WARP BEAMS—20-page Catalog No. 45 illustrating Standard and Special Purpose Warp Beams for the weaving industry, both broadloom and narrow fabrics. Also Textile Machinery Specialties.—MILTON MACHINE WORKS, INC., Milton, Pa.

530. ROTARY UNIONS—New catalog shows how to cut costs, get better sealing on can dryers, slashers, calenders, etc. Catalog No. 500 entitled "Where Good Connections Count."—PERFECTING SERVICE COMPANY, Atando Ave., Charlotte, N. C.

536. HOMOGENIZER IMPROVES SLASHING—Pamphlet by Manton-Gaulin Manufacturing Company shows how mechanical conversion of size by the Gaulin method produces better size. Gives installation pictures and specifications. — MANTON-GAULIN MANUFACTURING COMPANY, INC., Everett, Mass.

537. WEST POINT'S HOT AIR SLASHER—Bulletin describes advantages and capacities of new hot air slasher by West Point Foundry and Machine Works. Detailed specification included.—WEST POINT FOUNDRY AND MACHINE WORKS, West Point, Georgia.

538. AIR SLASHER DRYER—Pamphlet by Proctor & Schwartz shows construction and operating details of the Proctor Air Slasher Dryer. Advantages listed and cut-away view shown.—PROCTOR & SCHWARTZ, INC., 7th St. and Tabor Rd., Philadelphia 20, Pa.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Available about Oct. 1

Commercial Production of Celanese* Fortisan*-36

SUPER-STRONG HEAVY DUTY RAYON

Fortisan-36 is a high-denier, heavy duty saponified acetate rayon—an even stronger version of famous Fortisan, designed primarily for industrial application.

Pilot plant quantities are now undergoing evaluation in mechanical rubber goods and other fields. Limited poundage is available for further experimentation.

Facilities for expanded production of Celanese Fortisan-36 are nearing completion. Commercial quantities, including 800 denier—800 filament and 1600 denier—1600 filament yarns will be available for delivery about October 1.

Extensive research and development work, both by Celanese and many large industrial users, has established Fortisan-36 as a singularly useful industrial yarn.

Fortisan-36's very high tensile strength, extremely high modulus and excellent dimensional stability indicate that it will have an important place in the making of

V-Belts • Conveyor Belts • Fire Hose
Plastic Laminates • Filters
Paper Reinforcements
and many other applications

If you have a stake in any of these areas—or are concerned with any industrial application where high strength yarns are important—we'd like to work with you on the application of Fortisan-36 to your products.

Our technical men have a wealth of data which may indicate some new approaches to your problems.

For further information, write Celanese, Industrial Sales Department, Textile Division, Charlotte, North Carolina.

Celanese* Fibers for Industry

FORTISAN* • FORTISAN*-36 • ARNEL† • ACETATE • VISCOSE-RAYON

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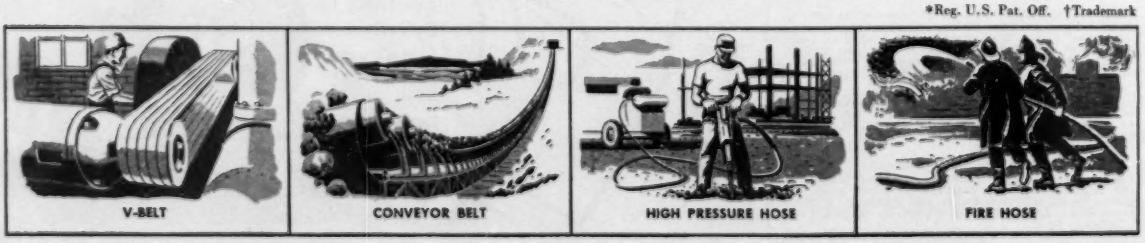

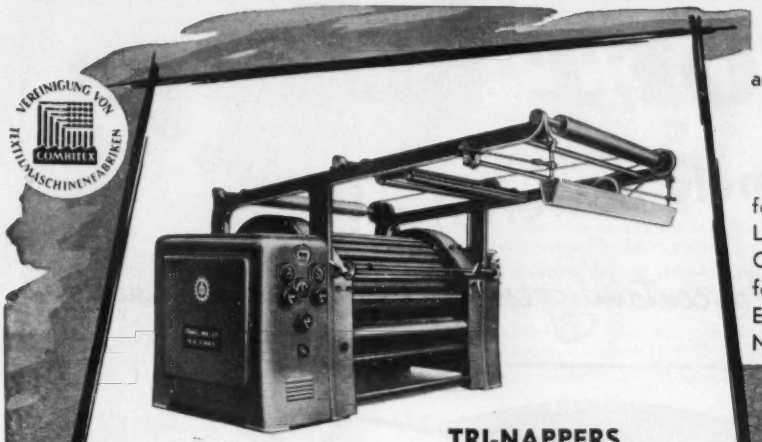

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are superior

Ask to see this new high production napper in operation.

Also investigate our complete machinery and equipment for cutting and finishing of:

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Agents:

for Southern States: PARROTT & BALLENTINE, Greenville, S. C., 510 South Carolina National Bank Building.

for Northern States: TEXTILE MACHINERY IMPORT CO., INC., New Rochelle, N. Y., 277 North Ave.

FRANZ MÜLLER
MASCHINENFABRIK · M.-GLADBACH

HELPFUL BOOKLETS FREE!

540. SLASHING EQUIPMENT—Brochure by Tower Iron Works shows different types of slashing equipment, enumerating characteristics and advantages of each.—TOWER IRON WORKS, 50 Borden St., Providence 3, R. I.

545. NOPCO CHEMICAL DATA SHEETS—Now available are Nopcostats, Nopco Sizes N and D, Important points in Warp Sizing, Interpretation of Analysis, Wetting Agents, balanced wool and worsted oils, Acetate Warp Sizing, Viscose warp sizing, Rayon soaking.—NOPCO CHEMICAL CO., Harrison, N. J.

DYEING, FINISHING CLOTH ROOM . . .

601. CONTINUOUS PEROXIDE BLEACHING RANGES—Booklet gives illustrations and describes uses and gives specification of Ranges.—RODNEY HUNT MACHINE CO., 49 Mill St., Orange, Mass.

602. CONTROLLED VAT DYEING—Calco technical booklet No. 828 discusses Stabilization of Vat Dyes at Elevated Temperatures, Instrumental and analytical measurements, Leuco Potentials.—AMERICAN CYANAMID CO., Calco Chemical Division, Bound Brook, N. J.

603. EMCO ROTARY CUTTER WINDER—Bulletin gives applications, sizes and exclusive features.—H. W. BUTTERWORTH & SONS CO., Bethayres, Pa.

606. HYDRAULIC POWER UNITS—Literature describing hydraulic unit, motor, pump, reservoir, valving a small compact unit for operating of hydraulic calenders, presses, hydraulic controls, etc.—B. F. PERKINS & SON, INC., Holyoke, Mass.

608. WASHERS FOR SCOURING, BLEACHING, ACIDIFYING—Well-illustrated booklet shows how Sargent's modern, high-capacity, continuous process washers can help maintain quality and decrease costs. Contains operation diagram and good commentary on construction.—C. G. SARGENT'S SONS CORPORATION, Graniteville, Mass.

610. PROCTOR DRYING MACHINERY FOR THE TEXTILE INDUSTRY—Illustrated, descriptive catalog on all types of dryers for raw stock, warps, package dyed and automatic skein yarn. Also includes preboarding and automatic boarding machines for hosiery. —PROCTOR & SCHWARTZ, INC., 7th and Tabor Rd., Philadelphia, Pa.

611. LOW COST DYEING—Bulletin by Blickman describes their fully enclosed, stainless steel Dyebox. Reports increased production per man hour and more runs per day at lower cost. Write for bulletin 7054.—S. BLICKMAN, INC., Gregory Ave., Weehawken, N. J.

614. TEXTILE FINISHING MACHINERY—Further information concerning the Wiesner-Rapp textile finishing machinery as connected with the Textile and Chemical Industries. Helpful in discussing processing problems.—THE WIESNER-RAPP CO., INC., 1603 Seneca St., Buffalo 10, N. Y.

615. HIGH PRODUCTION EXTRACTOR FOR RAW STOCK—YARN—HOSIERY—Descriptive bulletin and full information on automatic Twintainer Extractor with bottom-unloading removable baskets. Machine replaces three conventional extractors, lowers labor costs.—FLETCHER WORKS, INC., Philadelphia, Pa.

617. AUTOMATIC CONTROL SYSTEM FOR CONTINUOUS BLEACHING—Illustrated folder describes the new method of controlling the temperature, pressure, and liquid level in the continuous bleach operation.—TAYLOR INSTRUMENT COMPANIES, Rochester 1, N. Y.

619. PENFORD FINISHING GUMS—Booklet by Penick & Ford gives complete data, including physical properties and results which may be expected on Penford gums.—PENICK & FORD, LTD., 420 Lexington Ave., New York 17, N. Y.

620. REGENERATION OF ZEOLITE WATER SOFTENERS—Booklet explains advantages of International's Lixate Process in regeneration of zeolite water softeners. Shows how it cuts costs and does a better job.—INTERNATIONAL SALT COMPANY, INC., Scranton, Pa.

621. "DYEING SYNTHETIC FIBERS"—Brochure giving a comprehensive, detailed analysis of the methods and materials available for dyeing synthetic fibers. —GENERAL DYESTUFF CO., 435 Hudson St., New York 14, N. Y.

623. SELVAGE GUIDER—The Marshall and Williams positive overfeed and selvage guider is described in a brochure as being developed to meet the most modern requirements of the textile finishing industry. Full description, pictures and advantages discussed.—MARSHALL AND WILLIAMS CORPORATION, 46 Baker Street, Providence 5, R. I.

627. SINGLE APRON STOCK DRYERS—Folder presenting the latest idea in automatic drying which every mill having drying problems can profitably use to meet modern manufacturing conditions.—C. G. SARGENT'S SONS CORP., Graniteville, Mass.

628. TREATMENT OF SYNTHETIC TEXTILE FINISHES—High speed drying and curing of synthetic finishes by means of far-infrared radiation is covered in a new 22-page folder entitled "The Textile Report" by EDWIN L. WIEGAND COMPANY, 7700 Thomas Blvd., Pittsburgh 8, Pa.

630. COMPLETE NAPTHOL MANUAL—Practical working handbook, 110 pages, on textile dyeing and printing applications of Napthols. Write on company letterhead.—PFISTER CHEMICAL WORKS, Box 3-6, Ridgefield, N. J.

631. ELIMINATE DYE-BATH SHOCK—Data sheet by Foxboro shows how woven fabrics and hosiery may be protected from Crow's-feet, uneven shade, creasing caused by too rapid cooling of goods.—FOXBORO COMPANY, 487 Neponset Ave., Foxboro, Mass.

632. LUG STRAP WASHERS—Series 1-C illustrated bulletin detailing right and wrong application and use of washers.—E. H. JACOBS NORTHERN DIV., Danielson, Conn.

637. BALL BEARING TURN TABLE—Leaflet describing this 48" diameter steel turn table for use in mills where the cloth is delivered in rope form to trucks and the trucks are placed in position ahead of a Scutcher or cloth opening machine. Advantages discussed.—BIRCH BROTHERS, INC., 32 Kent St., Somerville, Mass.

639. ROTARY DYEING MACHINE—Booklet No. 425 illustrating the features of these stainless steel machines used for dyeing hosiery, hats, gloves, socks, etc.—SMITH, DRUM & CO., Allegheny Ave. at 5th St., Philadelphia 33, Pa.

653. GUIDERS AND TENSION DEVICES—Illustrated and described are the Mount Hope Precision Guiders and open width Tension Devices used for accurate, straight line guiding of open width goods. Bulletin SG-PG.—MOUNT HOPE MACHINERY CO., 15 Fifth St., Taunton, Mass.

658. BEAM MULTIPLE DYEING—Information on the Morton System Horizontal Beam Dyeing machine is available. Features include minimum handling of beams and the use of a common or individual dyebath for as many as six beams.—MORTON MACHINE WORKS, 1718 Third Avenue, Columbus, Ga.

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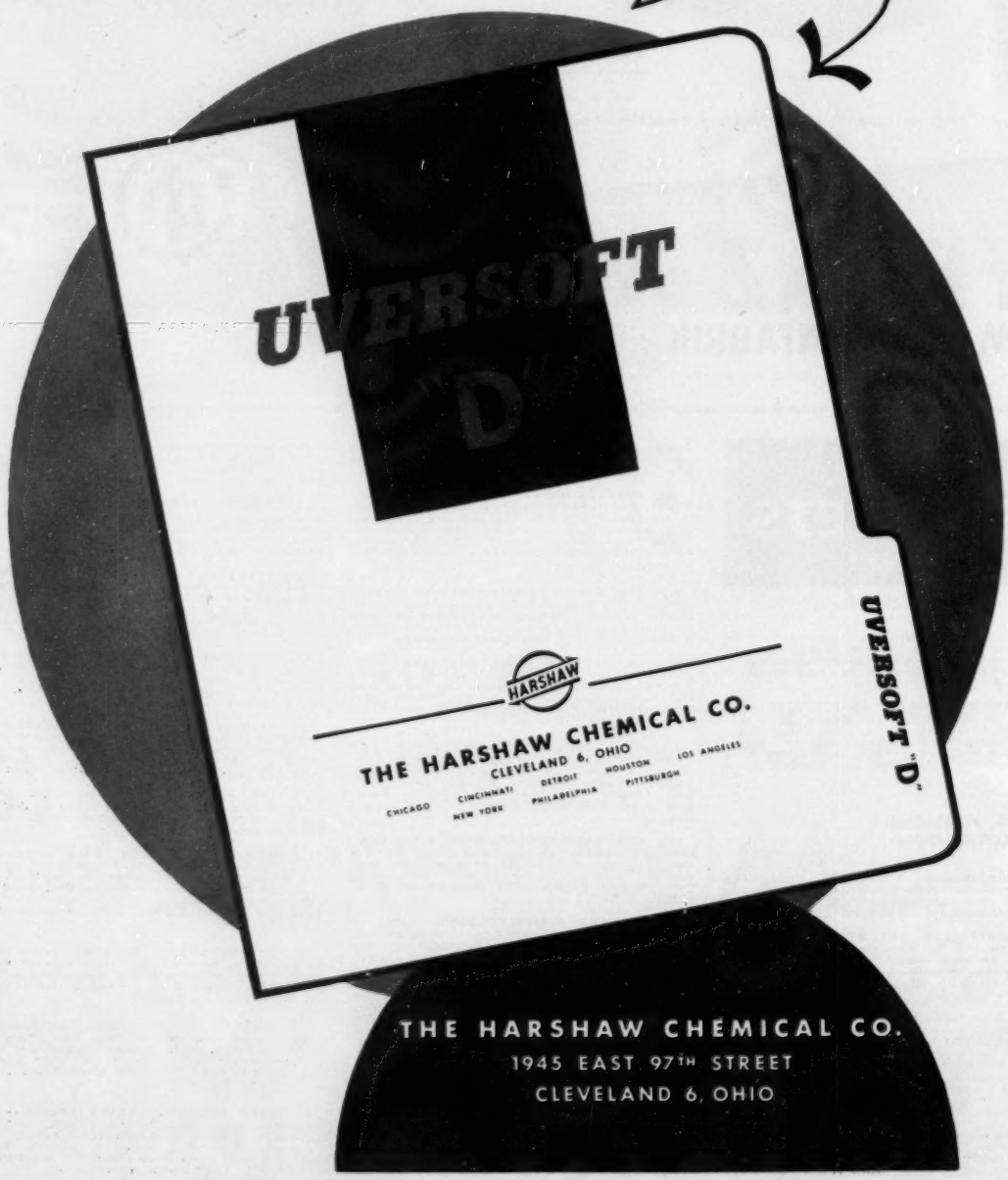

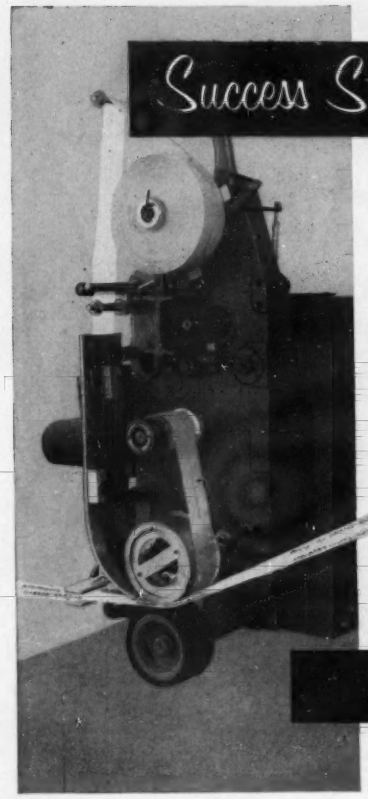

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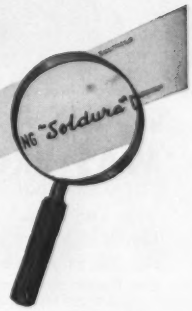

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DYESTUFFS, CHEMICALS, SOAPS . . .

701. MAGNESIUM APPLICATIONS—Case history information on magnesium application in the textile field, published bi-monthly with latest developments in the magnesium industry.—DOW CHEMICAL CO., Midland, Mich.

704. FUNDAMENTALS OF INDUSTRIAL WATER TREATMENT PROCESSES—24-page booklet entitled "If You Use Water" discusses the fundamentals of the three major classifications of industrial water treatment based on ion exchange: softening, dealkalization, and deionization.—ROHM & HAAS COMPANY, Resinous Products Div., Washington Square, Philadelphia 5, Pa.

705. THEORETICAL AND APPLIED SILK-SOAKING—Attractive 23-page booklet outlining methods of silk-soaking and outlining investigation on the soaking, back-winding and degumming of silk.—HART PRODUCTS CORP, 1440 Broadway, New York 18, N. Y.

710. DEPUMA—An odorless, viscous, non-evaporating emulsion which is highly efficient as an anti-foam, useful in all phases of dyeing and printing.—AMERICAN ANILINE PRODUCTS, INC., 50 Union Square, New York, N. Y.

712. CATALYST AC-6 — Booklet describes how Catalyst AC-6 steps up curing efficiency as much as 25 per cent. Free eight-ounce bottle upon request.—MONSANTO CHEMICAL COMPANY, Plastic Division, Dept. TI-3, Springfield 2, Mass.

713. LIOVATINE ED—Vat dyeing assistant increasing penetration and level dyeings with maximum yield of color.—SANDOZ CHEMICAL WORKS, 61 Van Dam St., New York City.

714. NEW SODA ASH BULLETIN—64-page edition contains both new material and revisions of previously used data covering the subject.—SOLVAY SALES DIV., 40 Rector St., New York 6, N. Y.

715. AQUAROL AND ARKANSAS PRODUCTS—Bulletin on Aquarol water repellent finish with method of preparing bath; also on other Arkansas products for cotton, wool, silk and yarn, hosiery processing.—ARKANSAS CO., INC., Newark, N. J.

719. WOOL OIL—Descriptive booklet on anti-static fiber lubricant, Twitchell 7421. Performance factors given particular emphasis are static control, scourability, lubricity and resistance to yellowing.—EMERY INDUSTRIES, INC., Dept. 5, Carew Tower, Cincinnati 2, Ohio.

720. INDUSTRIAL OIL—Bulletin catalogs all of Swift's Industrial Oil and Fatty Acid products. Included are detailed specifications, shipping information and suggested usage on products of animal, vegetable and marine sources.—SWIFT & COMPANY, Industrial Oil Department, 1800 165th Street, Hammond, Indiana.

721. SURFAX 1288—Product data sheet explains this useful wetting and rewetting agent. Described as being water soluble at all temperatures and is a highly concentrated, economical surface active agent.—E. F. HOUGHTON & CO., 303 W. Lehigh Ave., Philadelphia, Pa.

722. RESINS & LATICES — Booklet describes chemigum, latex, pliolite latex, plivoia latex, pliovic AO and their applications. Gives properties of Goodyear Latices.—GOODYEAR CHEMICAL DIV., 1144 East Market St., Akron 16, Ohio.

723. CHEMICAL CATALOG—Features detergents, wetting agents, emulsifiers, brighteners, sequestrants, dyeing assistants with chemical composition, properties and application.—ANTARA CHEMICALS DIV., GENERAL ANILINE & FILM CORP., 435 Hudson St., New York 14, N. Y.

727. COLOR PRINCIPLES—Booklet available from Sandoz Chemical describes the fundamental principles of color and its measurement.—Booklet has been adopted by several of the leading textile schools.—SANDOZ CHEMICAL WORKS, INC., 61 Van Dam Street, New York 13, N. Y.

729. STATIC AND STATIC CONTROL — Papers deal with historical background of static electricity and the problems caused by it along with methods of controlling them.—DEXTER CHEMICAL CORP., 819 Edgewater Road, New York 59, N. Y.

733. WOOL OILS—Twin booklets by Proctor and Gamble tell of the influence of wool oils in producing quality yarns and fabrics, and of Proctor and Gamble's Prosol T, an outstanding wool oil.—PROCTOR & GAMBLE DIST. CO., Cincinnati, Ohio.

734. BLEACHING WITH PEROXYGEN CHEMICALS—Bleaching methods for cotton, rayon, nylon and animal fibers are comprehensively treated in Becco Research and Development Dept., Bulletin No. 52 now available.—BUFFALO ELECTRO-CHEMICAL CO., INC., Station B, Buffalo 7, New York.

745. RAPIDASE FOR DESIZING—Bulletin explaining in detail the properties and characteristics of Rapidase.—WALLERSTEIN CO., INC., 180 Madison Avenue, New York 16, N. Y.

746. INDUSTRIAL CHEMICALS—24-page booklet listing alphabetically Harshaw industrial chemicals and applications.—THE HARSHAW CHEMICAL COMPANY, 1945 East 97th Street, Cleveland, Ohio.

749. WATER SOLUBLE GUMS—Booklet giving the origin, gathering, marketing and uses of water soluble gums. This booklet No. 23 is beautifully illustrated, and is one of the few treatises on the subject.—JACQUES WOLF & CO., Passaic, N. J.

753. TRITON X-100—Booklet available describing this highly concentrated detergent and wetting agent. Main uses fully discussed and chemical properties brought out.—ROHM & HAAS COMPANY, Philadelphia 5, Pa.

757. THE CHEMISTRY OF CYNANURIC CHLORIDE—Very comprehensive technical text by American Cyanamid Co. Gives physical properties, reaction chart, chemical properties, potential applications, toxicity, table of alcohol reactions, table of amine and related compound reactions. — AMERICAN CYANAMID CO., 30 Rockefeller Plaza, New York 20, New York.

766. DU PONT PEROXIDE BLEACHING SYSTEMS—New book illustrating and describing this continuous peroxide bleach system. Layouts and other information included.—E. I. DU PONT DE NEMOURS & CO., ELECTROCHEMICAL DEPT., Wilmington, Del.

769. SURFACE TENSION DEPRESSANT — The booklet, "Mercerizing and Alkamerce—The Ideal Dry" which can be used as a wetting agent; a dye leveling agent, a penetrant in package dyeing.—HART PRODUCTS CORP., 1440 Broadway, New York, N. Y.

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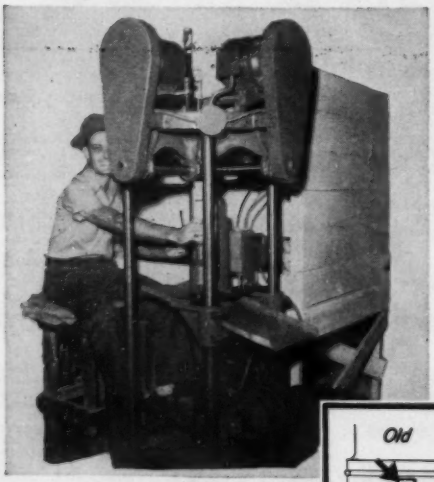

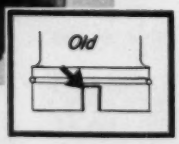

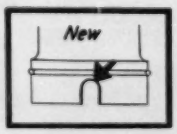

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774. **ROYCE TEXTILE CHEMICALS**—This booklet briefly describes the leading Royce products for textile processing, printing, dyeing and finishing.—ROYCE CHEMICAL COMPANY, Carlton Hill, N. J.

KNITTING . . .

800. **SYNTHANE TEXTILE PARTS**—Folder on laminated bobbins, pirns, headless package tubes, hosiery turning and examining forms, sizing bobbins, ets.—SYNTHANE CORP., 9 River Road, Oaks, Pa.

801. **THE WILDMAN SINGLEHEAD FULL-FASHIONED HOSIERY MACHINE**—Literature on request from the WILDMAN MFG. CO., Full-Fashioned Division, Norristown, Pa.

803. **TIPS ON SEAMING NYLON STRETCH HOSIERY**—Pamphlet lists in detail observations and suggestions on seaming nylon stretch hosiery prepared by Union Special as a result of findings of engineers in the field.—UNION SPECIAL MACHINE CO., 407 N. Franklin St., Chicago 10, Ill.

808. **REINER WARPER**—Full width and sectional Warpers for all requirements in the knitting and weaving industry fully described in recent catalog.—ROBERT REINER, INC., Weehawken, N. J.

818. **FORGED HEAD ALUMINUM BEAMS**—Bulletin 49-A shows new beam capable of holding high yardage of nylon and rubber warps, with specifications. Also describes permanent mold aluminum tricot and section beams.—MILTON MACHINE WORKS, INC., Milton, Pa.

828. **THE KIDDE KNITTER**—Bulletin describing this newest in Raschel-type warp knitting machines and higher production attained with it.—KIDDE MANUFACTURING CO., INC., Farrand St., Bloomfield, N. J.

SEWING MACHINES . . .

924. **BUTT-TACKING SEWING MACHINE** — Booklet describes an operating installation of the Merrow single thread butt-tacking sewing machine. Gives performance data, and advantages of butt-tacking.—THE MERROW MACHINE COMPANY, 28 Laurel Street, Hartford, Connecticut.

MATERIALS HANDLING . . .

1003. **CASTERS AND WHEELS**—192 pages, describing casters and wheels suitable for all types of industrial applications. Every mechanical engineer and purchasing agent should have this. — DARNELL CORP., LTD., Long Beach 4, Calif.

1006. **LANE CANVAS BASKETS**—16-page illustrated booklet describing the Lane line of canvas baskets for textile use.—W. T. LANE & BROTHERS, Poughkeepsie, N. Y.

1107. **OVERHEAD HANDLING EQUIPMENT** — 56 pages of illustrations showing successful applications of monorail systems to meet every kind of handling problem.—THE AMERICAN MONORAIL CO., 13106 Athens Ave., Cleveland 7, Ohio.

1008. **CASTERS AND WHEELS**—An illustrated booklet with complete specifications showing a complete assortment of Cotton Textile Casters.—THE COLSON CORP., Elyria, Ohio.

1010. **CONVEYOR KEY BOOK**—A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well-illustrated with photos showing plant layouts and sketches showing where, how and why different types of conveyors are used for maximum results.—LOGAN CO., 1115 Franklin St., Louisville, Ky.

1017. **"HOW TO OPERATE A LIFT TRUCK"**—Booklet gives information about the operation of a lift truck, preventive maintenance, safety and basic materials handling.—HYSTER COMPANY, Portland 8, Oregon.

1030. **CDF RECEPTACLES**—This 32-page catalog R-11, profusely illustrated in color, shows Continental-Diamond's line of boxes, trucks, cans, barrels, baskets, and trays. Complete description and specifications are given on each item.—CONTINENTAL-DIAMOND FIBRE CO., Newark 11, Del.

MISCELLANEOUS . . .

1102. **BALING PRESSES**—An illustrated folder describing this manufacturer's complete line of balers for all materials. Both Downstroke and Upstroke models.—ECONOMY BALER CO., Ann Arbor, Mich.

1103. **UNBRAKO SCREWS** — Illustrated 16-page booklet No. 570 gives data on Unbrako hollow set screws, with knurled point, self-locking features. Includes miscellaneous screw and locking nut data.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

1111. **BRUSHES**—A 26-page booklet is now available which describes and illustrates this manufacturer's line of brushes for the textile industry.—GASTONIA BRUSH COMPANY, Gastonia, N. C.

1112. **THE RANDOM WEB PROCESS**—Bulletin No. 101 describes the Rando-Webber and Rando-Feeder machines, and discusses the origin and development of the Random Web process which produces a non-oriented web suitable for processing into felts, wadding, heavy mats and non-woven fabrics on a continuous basis. Engineering data and cut-away diagrams.—CURLATOR CORPORATION, Textile Division, 505 Blossom Rd., Rochester, N. Y.

1113. **MACHINE KNIVES** — Catalog and price sheets describing this company's line of knives for use on textile machinery.—TAYLOR-STILES & CO., 21 Bridge St., Riegelsville, N. J.

1115. **TEXTILE WRAPPING MACHINES**—Brochure describing automatic wrapping machines for various types of textile products, including the new Hayssen V-Type Underfold, most protective package made.—HAYSSEN MANUFACTURING CO., Sheboygan, Wisconsin.

1122. **BALING PRESSES**—Bulletins available describing this company's line of motor-driven and hydraulic baling presses for finished goods, textile fibers, wool, and waste of all kinds.—LOGEMANN BROTHERS CO., 3150 West Burleigh St., Milwaukee, Wis.

Gives you all the data you need to select the finest canvas baskets, hampers and trucks for your mill or factory. The eleven styles most popular in the textile and garment industries are illustrated and described fully. The new catalog includes such outstanding items as the Style 28 Narrow Aisle Truck shown below.

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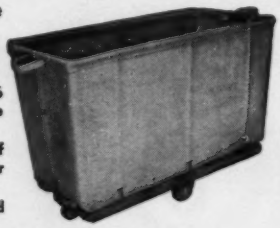

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Personal NOTES ABOUT MEN YOU KNOW

(Continued from page 46)

Obituaries

S. P. Agnew, 52, production manager of Bemis Bro. Bag Co.'s Bemiston, Ala., plant.

Lloyd Thomas Ayers, 44, overseer in the spinning department of Monaghan Mill, Greenville, S. C.

Charles L. Beaudrot, 73, assistant secretary of Abney Mills, Greenwood, S. C.

Morgan P. Bodie, 62, cotton merchant, Forest City, N. C.

Edward Clay, 73, founder and president of Bristol (R. I.) Lace Works.

C. C. Cranford, 80, president of Asheboro Hosiery Mills, Asheboro, N. C.

Arthur L. Donahue, Sr., 61, former superintendent at the Anchor Rome Mills, Rome, Ga.

Ernest Drouin, woolen carder, Lebanon, N. H.

John W. Engle, 74, retired superintendent of Virginia Mills, Graham, N. C.

William F. Harrington, 85, formerly president and director of the Elliot Manufacturing Co., Manchester, N. H.

Edwin W. McGowan, 61, executive vice-president of the Wyandotte Worsted Co., Waterville, Maine.

W. H. Miller, Jr., 45, director of sales for Sonoco Products Co., Hartsville, S. C.

Walter J. Mooney, 63, president of the Ballston-Stillwater Knitting Co., Ballston Spa, N. Y.

Chandler Robbins, II, 48, assistant to the president of Bates Mfg. Co., Lewiston, Me.

Charles Monroe Suther, retired superintendent of Golden Belt Manufacturing Co., Durham, N. C.

Clifford J. Swift, 72, chairman of the board of Swift Spinning Mills, Columbus, Ga.

What the TEXTILE MILLS are doing

Fabrics produced by **Alamac Knitting Mills, Inc.,** Indian Orchard, Mass., won a total of nine awards recently at the California State Fair and Exposition. * * * **Valhalla Mills, Inc.,** Boonton, N. J., has been purchased by Alamac Knitting Mills. This places Alamac in position to produce plain and novelty tricots and pile fabrics for the dress, sportswear, coat, and glove trades.

Alba Hosiery Mills is the name recently adopted by Pilot Full-Fashion

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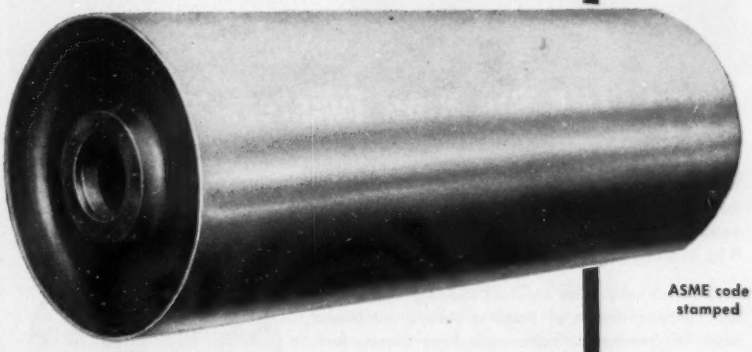

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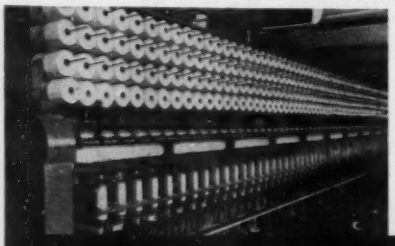

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Collins Big Ring Twisters produce 4 to 12 lb. packages of exceptionally clean knotless yarns, when employing a 6 to 8 in. ring size.

High Speeds are possible because Collins Big Ring Twisters are equipped with large diameter pulleys, anti-friction idlers, ball bearing front roller stands, large diameter feed rolls, and roller bearing spindles.

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What the TEXTILE MILLS are doing

Mills, Inc., Valdese, N. C. The company produces the Alba brand of hosiery.

St. Stephen, S. C., is the location selected by **Albany (N. Y.) Felt Co.** for a new plant, construction of which is scheduled to begin early next year.

A 14,000 sq ft office building will soon be ready for occupancy by personnel of **Amerotron Corp.** in Aberdeen, N. C. The firm's accounting department will be transferred to Aberdeen from Clarksville, Va.

According to an announcement, stockholders of **Arcade Cotton Mills,** Rock Hill, S. C., have approved the sale of its assets to **Mt. Vernon-Woodberry Mills, Inc.** A $500,000 modernization program involving new equipment and machinery for the Rock Hill plant has already been initiated.

Personnel from the business houses in Stevenson, Ala., as well as employees of **Avondale Mills' Mary Ann Plant** in Stevenson, were guests recently at the first open house held at the mill since it was converted to the use of synthetics for making yarn.

Bemis Bro. Bag Co. has reported the development and production of a new product called "BemisWall," a folding curtain designed for use as a retractable partition or wall. Suitable for use in schools, churches, offices, studios, and other areas where space division is required, BemisWall is a high density curtain, heavily coated with a flameproofing resin on high grade jute. Several decorator colors are available.

R. C. McCall, president of Pinnacle Mills and McCall Mfg. Co., has purchased **Broad River Mill** in Blacksburg, S. C.

Botany Mills, Inc., of Passaic, N. J., has entered the cotton textile field. This woolen and worsted manufacturer recently purchased substantially all of the common stock of **Gastonia (N. C.) Combed Yarn Corp.** Mills involved in the transaction are: the Clara, Dunn, and Armstrong plants in Gastonia; **Jewel Cotton Mills, Inc.,** in Thomasville, N. C.; **Irene Mills, Inc.,** Taylorsville, N. C.; and **Gurney Manufacturing Co.,** Prattville, Ala. Op-

erating under the name of Botany Cottons, Inc., the new company is directed by the present management of Gastonia Combed Yarns.

The new thread finishing plant of **Coats & Clark, Inc.,** at Toccoa, Ga., (see TEXTILE INDUSTRIES for February 1955, pages 186A through 186K) has been named one of the ten most significant manufacturing plants completed in the United States in 1954. The plant was chosen in a nationwide competition sponsored by the magazine "Factory Management and Maintenance." The award cites the new plant for "incorporating a superior electrical distribution system that delivers precision power for a key thread manufacturing operation in a modern textile mill."

Photo of the award presented to Coats & Clark.

141 pupils received their kindergarten diplomas recently when the four kindergartens sponsored by the **Callaway Mills Co.,** LaGrange, Ga., held graduation exercises. * * * The ultramodern Coleman Library in La Grange was dedicated on June 10 for the use of employees of Callaway Mills Co., their families, and friends. Planned for all ages, it contains several thousand books. Magazines, records, and films are also available.

Champlain Mill, Winooski, Vermont, is a new woolen mill to be housed in a part of the former American Woolen Co.'s Winooski plant. The property has been purchasd by Matson Mills, So. Glastonbury, Conn., who plan within the next six months to discontinue operations in Glastonbury and start up in Winooski.

Manufacture of spun yarns at the **Cheney Bros.** Manchester, Conn., plant, now owned by J. P. Stevens & Co., Inc., has been discontinued be-

NEW U.S. ACME Combo TWISTER

3 machines combined into 1

No. 1 CONVENTIONAL UP-TWISTER

No. 2 HEADLESS PACKAGE UP-TWISTER

No. 3 WITH PERMANENT MANDRELS

• NEW SHOCK PROOF TRAVERSE MOTION

one of the "SHORT-CUT METHOD" pair

Write or phone for complete information

U.S. ACME

COMBO DOUBLE DECK TWISTER

Here is twisting versatility at its profitable best in a new, LOW COST MACHINE that's made for today's competitive, changing market!

U. S. TEXTILE MACHINE CO.
SCRANTON 8, PENNA.

HOW ANDERSON SHIELDS INCREASE SPINNING ROOM EFFICIENCY

Spinning rooms using Anderson Shields save time and money, and prevent disruption when unnecessary breaking, chipping, and splitting of bobbins and spools is avoided. In a year's time these items alone can amount to a surprising sum . . . Insist on Anderson and get the best protection metal shields afford . . . Watch your spinning room efficiency increase!

TEXTILE SHIELD CO., INC.

Metal Protection for Wood Turnings

J. N. ANDERSON, *Treas.*

LAWRENCE, MASS., U.S.A.

Mount Hope Machinery Company
15 Fifth Street, Taunton, Mass.

Gentlemen:
Yes - send my Bulletin (S. U. 3)
by return mail - no obligation.

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This new bulletin shows how you can save money five ways with the Mount Hope Model S Selvage Uncurler. Send coupon, write or phone us now. No obligation!

MOUNT HOPE
MACHINERY COMPANY
15 FIFTH STREET, TAUNTON, MASS.

TON-TEX VULCANIZING SYSTEM

Time Tested for 20 Years.

The only complete system for making belts endless on your machines, including Ton-Tex tools, cements, instructions, and the #1000 Ton-Tex Vulcanizer.

This practical low priced 2 plate #1000 was developed and patented by Ton-Tex to meet the demand for a lightweight portable unit. Weighs only 37 lbs., and operates from any lamp socket outlet. Includes automatic thermostat control, pilot light, and heat indicator.

Write for complete literature.

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BOSTON, MASS. 51 Sleeper St.
29 Years Serving Industry

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announcing a NEW multi-purpose material...

OAKITE RUSTRIPPER

- *for removing rust from steel reeds*
- *for removing oil, grease, fats; stripping paint from parts and equipment*

This amazing new material, Oakite RUSTRIPPER, is excellent, not only for removing rust, but for innumerable other conditioning operations where time and safety are at a premium. RUSTRIPPER comes in easy-to-handle powder form . . . contains no cyanide. An alkaline material, it will not attack sound metal, and may be used safely in iron and steel tanks. There are no troublesome fumes or disposal problems, either, when you use RUSTRIPPER. Why not investigate this revolutionary new material today? Call your local Oakite man, or write Oakite Products, Inc., 52D Rector Street, New York 6, N. Y.

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OAKITE
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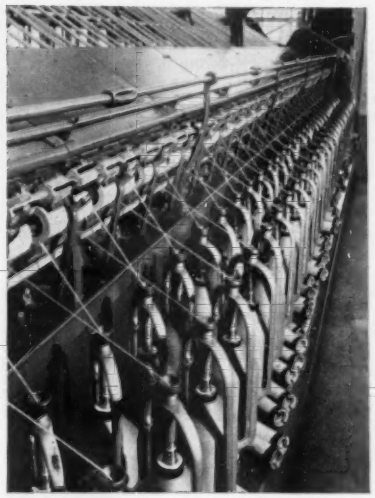
Technical Service Representatives in Principal Cities of U. S. & Canada



HALO...

TWIST CONDENSERS ROVING PRETWISTERS*

The two design HALO TWIST CONDENSER gives maximum pretwisting and uniformity of twist on all flyers. One design fits on the front flyers and one fits on the back.

Condensers fit snugly on the flyer and are made of synthetic rubber so as not to be affected by oils on fibers.

In extensive tests actually in the mills, it has been proved that the HALO TWIST CONDENSER effects the following conditions: less ends down, less waste, heavier bobbins, more uniform yarn, up to 20% higher production, and lower costs.

Write for details today. Orders will be filled in one to ten days.

*"PAT. APPL'D FOR"

Tillicum

RUBBER COMPANY

LACEY WASHINGTON

What the TEXTILE MILLS *are doing*

cause of "lack of business and losses incurred in recent years in that department."

A second floor is being constructed over the present plant of **Cline Hosiery Co.,** Spruce Pine, N. C. As soon as it is completed, twice as much floor space will be available, providing a total of about 12,000 square feet.

Construction of a $2,500,000 dyeing and finishing plant one and one-third miles north of Albemarle, N. C., is planned by **Collins & Aikman Corp.,** with completion scheduled for the end of this year. Located within a 75-mile radius of the company's four North Carolina mills, the new plant will replace Collins & Aikman's dyeing and finishing facilities in Philadelphia, Pa. It is planned that production will be shifted gradually from Philadelphia to Albemarle over an 18 months period after the plant is built. Included in the transfer will be the company's research laboratories for weaving and dyeing. About three hundred persons will be employed in the Albemarle plant. * * * A new department has been set up by the company to specialize in a long range program of new product development, with K. B. Jackson and Alec Stewart as joint heads of the department. According to Donald F. McCullough, executive vice-president in charge of sales, the department also helps to maintain the company's current rate of product diversification which has been the most intensive in the past three years of the textile firm's 111-year-old history.

Coral Dyeing & Finishing Corp. is the new name of the former Windsor Dyeing & Finishing Corp., Paterson, N. J.

A decorative fabrics division has been created at **Dan River Mills, Inc.,** Danville, Va.

Competitive conditions in the flat duck field was reported to be the reason for closing the Weldon, N. C., mill of **C. R. Daniels, Inc.**

A program of financial assistance to the independent colleges of South Carolina was recently announced by **Deering, Milliken & Co., Inc.** This program provides that the Deering-Milliken Foundation will contribute

Cut Rove, Sliver, or Filament Yarn into UNIFORM LENGTHS

This machine cuts rove, sliver, and continuous filament yarn into uniform lengths for subsequent blending or other processes.

●

The length of cut may be quickly varied by making adjustments using a variable speed motor or by changes of sprockets.

●

Up to 600 pounds an hour, depending on length of cut is standard.

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Write for descriptive folder.

TAYLOR-STYLES & COMPANY

204 Bridge Street Riegelsville, N. J.

Stainless Steel CYLINDERS

...accurate...true running

Blickman Built Stainless Steel drying cylinder . . . 60 inch diameter. Plate No. 7252

Stainless Steel drying rolls . . . high pressure steam, built to A S M E code specifications.

FOR TROUBLE-FREE SERVICE UNDER MODERN HIGH SPEED TEXTILE OPERATIONS

For protecting the fabrics you process, Blickman Built cylinders are being recommended and used by an increasing number of manufacturers of textile finishing machinery. The reason is simple. Blickman specializes in the fabrication of stainless steel cylinders to give you a more accurate, more dependable, safer cylinder. Our special plant equipment and controlled welding procedures assure rugged construction for long service. Blickman Built cylinders are available through many textile machine builders or through us.

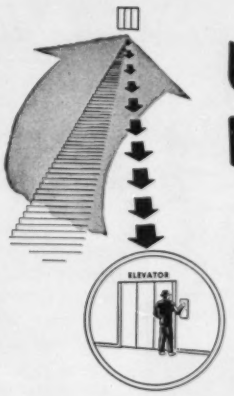
- **DIMENSIONS**—Built in any diameters or lengths to meet your requirements.
- **FINISH**—Polished on our own automatic machines to as high as number 6 finish, if you require it.
- **CODE REQUIREMENTS**—Cylinders built to conform to local and ASME national board codes.
- **INSPECTION**—Tested at twice working pressure . . . thoroughly checked for leaks.
- **CONSTRUCTION**—Mechanically sized for accuracy and true running. Furnished with or without heads.
- **TYPES**—Dry cans, presetting cylinders, cooling cylinders, etc.

Specify Blickman Built cylinders through your textile machine builder . . . or send your inquiry direct to us. Quotations furnished promptly.

EST 1889

S. BLICKMAN, INC. 208 GREGORY AVENUE WEEHAWKEN, N. J.

Manufacturers of stainless steel textile equipment, dye boxes, linings, cylinders, dry cans, rolls, hoods, tanks.



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An elevator engineered to your particular requirements, offers an immediate and long range solution to most problems of two or more story plant operations.

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Monarch is the largest elevator manufacturer in the Southeast. A Monarch engineer will be glad to survey your elevator needs without cost or obligation.

Electric and Oil Hydraulic, Dumbwaiters, Platform Lifts, and Home Elevators. Repairs and Maintenance on all Makes.

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HALLOWELL®

SOLID STEEL COLLARS

Size-marked for quick identification in 42 stock sizes

And these precision-machined solid steel collars stay put because they are held in place on the shaft by the famous UNBRAKO Self-Locking Socket Set Screw. Authorized industrial distributors carry complete stocks in sizes from 3/16" to 3" inclusive. Write for Bulletin 868. STANDARD PRESSED STEEL CO., Jenkintown 34, Pa.

HALLOWELL POWER TRANSMISSION DIVISION **SPS** JENKINTOWN PENNSYLVANIA

What the TEXTILE MILLS are doing

to the South Carolina Foundation of Independent Colleges, Inc., an amount equal to the amount of any and all contributions made to one or more of the member colleges by a Deering-Milliken employee who is a former student at such colleges, the husband of a former student of said colleges, or the parent of a student now in one of said colleges. Funds received under this program will be distributed to member colleges of the South Carolina Foundation in the same proportion that gifts are made to the colleges by employees of the Deering-Milliken group. No restriction has been placed on the use of the funds received by the colleges from the Foundation.

Up to four colors can be printed simultaneously on knitted fabrics produced at **E-Z Mills, Inc.,** Cartersville, Ga., with new cloth printing machinery recently installed. * * * The company has announced that it has secured a Walt Disney franchise for its children's knit goods products to feature such characters as Donald Duck, Mickey Mouse, Davy Crockett, and others.

Fastex Printing & Dyeing Corp., Sterling, Conn., is a new concern operating in a part of the former U. S. Finishing Co. plant. The firm is starting with three modern printing machines. Bernard Golding, formerly treasurer and manager of Southbridge (Mass.) Finishing Co., is manager.

A new corporation, **Fawntex Yarns, Inc.,** manufacturers of Orlon yarns spun on the woolen system, is located at 300-322 Butler St., Brooklyn, N. Y. Sales and distribution for the new firm are handled by Louis W. Fall, formerly director of the technical division, Navy Clothing Supply Office, Brooklyn.

The installation of a third British-made Bywaters felt hardening machine has been completed at the Millbury, Mass., mill of the **Felters Company,** bringing to four the number of hardeners at this mill and giving it a capacity of five million pounds yearly.

New Supervisors at **Fieldcrest Mills, Inc.,** Spray, N. C., are given a 10-weeks induction course designed to provide them with general information about the company and acquaint them with specific functions of the various staff departments. * * * 75 supervisors were enrolled in the spring series of courses in management techniques organized by the training department of **Fieldcrest Mills, Inc.** How to conduct meetings, effective speaking, principles of machinery, and business English were subjects included on the program.

Frank & Stessel, Inc., is the new name of the firm, **Frank Associates.** Policies of the company, general office of which is located at 130 Madison Ave., New York City, will continue unchanged, according to Edmund Frank, president, except that there will be greater emphasis on commission weaving. Lester I. Stessel is vice-president and secretary.

A new type of canvas tent for the storage of grain is being manufactured by **Fulton Bag & Cotton Mills** at plants in Atlanta, Ga., and New Orleans, La.

Gossamer Products Co., weaver of narrow fabrics, has moved from 40 Church St. to 179 Conant St., Pawtucket, R. I.

Fourteen new high speed ball bearing drawing frames equipped with ball bearing coiling systems for 14" cans have been purchased by the **Graniteville (S. C.) Co.** for the new addition to its Hickman Plant.

J & J Spinning Mills, Inc., of Maiden, N. C., has been purchased by Jerry Walker of Walker Engineering Company, Dallas, N. C. Liquidation of the machinery is planned.

Section men from all shifts at **Joanna (S. C.) Cotton Mills Company** went back to school recently to hear reports from Joanna's staff officers as to the condition of the textile market at present, the low operating margin of the company, etc.

The full-fashioned sweater mill owned by **Morris Kaplan** and located at 60-84 Myrtle Avenue in Brooklyn, N. Y., has been purchased by **Peter Muller & Sons,** 225 Starr St., Brooklyn.

Now under construction at Dahlonega, Ga., is a $200,000 plant which will be utilized for spinning yarn for the tufted carpet division of **James Lees & Sons Co.** at Bridgeport, Pa. Owned by Lees, the plant will be a

Call MILTON for dependable BEAMS

Light Metal featuring continuous welded construction

NYLON & RUBBER YARN BEAMS

FORGED HEADS
RIGID BARRELS

Forged heat-treated aluminum alloy heads and extra heavy wall barrels designed to withstand extreme pressures of monofilament; fine denier; low-turn nylon; and rubber yarns. 13¾" and 21" diameter heads.

SECTION BEAMS

Adaptable to all makes of warpers. Cast aluminum alloy heads and extruded aluminum barrels cannot shrink, swell, splinter or distort.

STEEL BARREL
WARP BEAMS
for BROAD, NARROW FABRIC, RIBBON, VELVET AND CARPET LOOMS

BROADLOOM BEAMS

for C & K and Draper Looms

Shown above is Milton's stud construction (also made with cast iron hubs).

RIBBON LOOM BEAMS

Adjustable head with fixed shaft, or fixed head with removable shaft.

WRITE FOR FREE BULLETINS

MILTON MACHINE WORKS
INCORPORATED
DESIGNERS • ENGINEERS • MANUFACTURERS
MILTON • PENNA.

What the TEXTILE MILLS are doing

modern one-story brick and steel structure containing 82,000 square feet. According to Joseph Jervis, who will be general manager of the operation, 100 to 175 operators will be employed when the mill is placed in operation sometime this summer.

The Dundee Community Association of Griffin, Ga., has awarded the George Niles Murray Memorial Scholarship to William Roland Brown, a graduate of Griffin High School. Mr. Brown's father is employed by **Lowell Bleachery, South,** in Griffin. The award is for $1,000 per year for four years and enables the recipient to attend any accredited college of his choice in Georgia.

The carpet manufacturing firm, **C. H. Masland & Sons,** Carlisle, Pa., has doubled its tufting capacity through the installation of new equipment, including drying equipment, tufting machines, dyeing machines. * * * Officials of the company recently presented awards to Kenneth E. Hankins, chemist, and Frank D. Kitner, general foreman for finishing, for showing initiative and perseverance in developing a finishing operation which not only saves many dollars in materials and handling charges but also improved the quality of the finished carpet.

Production facilities at the **Maryon Hosiery Mill, Inc.,** Carrollton, Ga., have been increased, and further expansion is scheduled for later this year.

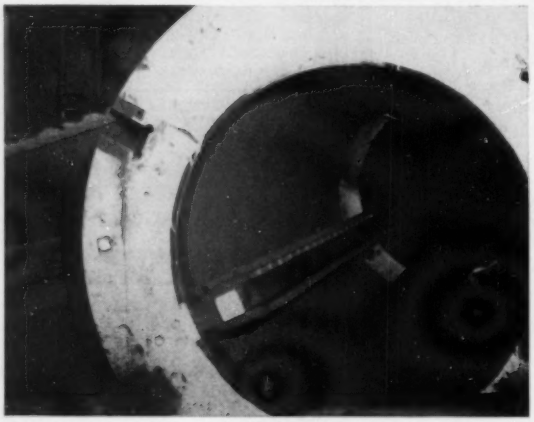
A paddle dyeing unit, tumbler dryers, and extractors are some of the items of new equipment recently installed by **Milpac Dyeing Co., Inc.,** enabling the firm to substantially increase its production and handle single dye lots of sweater fabrics in lots up to 750 pounds. A conveyor system was provided to speed up flow of work in the dye house. Laboratory facilities were also improved.

Employees of **Opp & Micolas Cotton Mills, Inc.,** Opp, Ala., who became members of the Opp & Micolas Profit Sharing Plan in 1945 will receive a cash payment at the end of this year equal to the profit that was posted to their credit for the year 1945. This will amount to a total of over $80,000. Cash payments will continue to be made from the profit sharing trust fund to eligible members at the end of each year according to the provisions of the Profit Sharing Plan.

Princeton Knitting Mills, Inc., is manufacturing a knitted fabric called Orllegro which is a fur-effect blend of Orlon and dynel. It is expected that the fabric will be used for making women's coats, hats, bags, upholstery, etc.

Narragansett Braid Mill, Inc., is a new concern now in production at 181 Conant St., Pawtucket, R. I. Sam O. Silver is president and treasurer, and John Jeanotte is manager and buyer.

Ninety-nine employees of the dyeing and finishing plant of **Riegel Textile Corp.'s** Trion, Ga., Division, had perfect attendance records during the calendar year 1954. All were personally congratulated by letter. * * * The company has donated the building



DIRECT HEAT FOR CYLINDER DRYING

Red-Ray Burner inside cylinder provides heat for faster drying or curing.

Red-Ray Burners may also be applied directly to the exposed surface of the material.

Your inquiries are invited

RED-RAY MANUFACTURING CO., Inc.

318 CLIFF LANE CLIFFSIDE PARK, N. J.

Tel: Cliffside 6-10000 (ten-thousand)

For Nearly Half A Century

• • • • we have been printing Textile Industries and other W. R. C. Smith Publications in our growing plant which is today one of the South's largest, leading and most progressive printing organizations.

L. A. LEE Company, Inc.

DALTON, GEORGIA

Printers and Publishers

site for the St. Barnabas Protestant Episcopal Mission to be located at Trion.

Eight new 16½ cut Jacquard circular knitting machines have been installed at **Shelley Knitting Mills Co., Inc.,** Philadelphia, Pa., and an additional 12,000 sq ft of floor space has been acquired. New sewing, looping, and pressing equipment is also available for the manufacture of sweaters.

An artists' contest is being sponsored by **The Springs Cotton Mills** in South Carolina for members of the Guild of Charlotte (N. C.) Artists. Subject of entries is to be either the interior or exterior of the ultra-modern office building of the company located in Fort Mill.

A cellophane overwrapped tray which provides top and bottom visibility and completely eliminates soiling of merchandise has been adopted by the **Seneca Knitting Mills Co., Inc.,** Seneca Falls, N. Y., for its "Red Jacket" athletic socks. According to the company, the package lends considerable sales appeal, stacks easily on retailers' shelves, and brings the socks to the consumer in a completely sanitary condition.

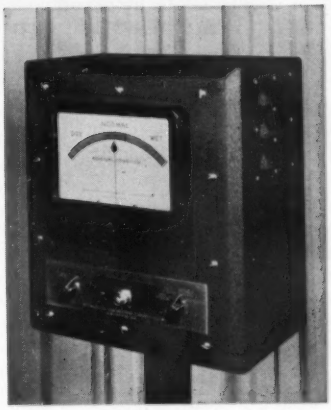
The MOISTURE MONITOR

accurately shows

TARE WEIGHT of PICKER LAPS

With face calibrated in pounds of tare this low-cost instrument shows at a glance actual tare weight of picker lap based on moisture content of the cotton itself. Mills throughout the industry are reporting greater lap uniformity than ever before.

Easily and quickly installed. Sold on guaranteed satisfaction basis. For full facts, write or wire today.



SPEEDS PRODUCTION

On slashers, tenters and dryers The MOISTURE MONITOR shows any deviation from your set normal moisture content. Recording and control equipment for use on slashers and finishing machines also available.

STRANDBERG ENGINEERING LABORATORIES

416 W. Market St. **Greensboro, N. C.**

ON GENIUS—

Genius is nothing more than knowing the use of tools, but there must be tools for it to use. A man who has spent all his life in one room will give a poor account of what is contained in the next.

SAMUEL JOHNSON, 1784

John P. MAGUIRE & COMPANY INC.

By providing genius with the proper tools – experienced judgment and broad perspective – our organization helps to make the brilliance of genius effective.

JOHN P. MAGUIRE & COMPANY, INC.

FACTORS

370 Fourth Avenue, New York
Murray Hill 3-4141

(Continued from page 65)

records, then competition and free enterprise will about have come to the end of the road. We might then find ourselves in the middle of a situation whereby Competitor A would surreptitiously subsidize a union trying to organize Competitor B just so that financial data might be made available to it. There would be about as much "free enterprise" in this as there would be if a retail merchant demanded to know how much money you had in your pocket before he would tell you the price of a given article.

Leaving out the legal technicalities and the question of whether or not the refusal of the Truitt Manufacturing Company to allow an inspection of its books constituted a refusal to bargain (which we do not think it did), then it may readily be seen that the Courts have been asked to decide a very basic and important question of administrative privacy.

SUPPLIERS News

WHAT THEY ARE DOING

Retirement of James Dixon and A. C. Loomis from the dyestuff department of **American Cyanamid Co.** climaxes a total of 81 years service to the textile industry. Sixty-five of those years have been spent with Cyanamid in the Philadelphia and Springfield, Mass., areas. * * * American Cyanamid has announced that 17 undergraduate scholarships and 14 graduate fellowships will be awarded in chemistry and chemical engineering for the academic year 1955-56.

Now being installed at the Front Royal, Va., plant of **American Viscose Corp.** is equipment to provide for an additional annual production of 40 million pounds of rayon staple. * * * The corporation is undertaking a comprehensive program of advertising, merchandising, and other promotion to establish Avisco as the "leading manufacturer of quality raw materials going into a wide variety of end products." The plan is designed to apply the name "Avisco" to end products that meet established standards in a wide variety of fields, including apparel, home furnishings, industrial uses, and cellophane. To participate in the program, manufacturers are required to certify that their products meet established standards as specified by Avisco. * * * Derby A. Denson has joined the corporation's staple sales division as a sales representative. He will be concerned specifically with merchandising activities in the carpet field. * * * J. Reid Durbin, who has been in charge of rayon staple sales at the district sales office in Charlotte, N. C., has been appointed assistant manager of the office, under Norman A. Cocke, Jr.

The appointment of Richard F. Amacher as sales manager of its bulk corn products department has been announced by **Anheuser-Busch, Inc.**

Better
IDENTIFICATION BANDS
for your
ROVING CANS

IDENTIFICATION BANDS OF UNITED ELASTIC WEBBING FEATURE

- the most in service
- a very attractive price
- well-made, firmly-woven construction
- securely sewed laps
- any desired color
- bright, solid, even colors
- fast-to-light, non-fading dyes
- easily recognized at a distance
- easily removed and transferred

If you will specify the can diameter; and the color, width and quantity of bands desired; we will submit samples and quote prices.

UNITED ELASTIC CORPORATION
EASTHAMPTON, MASS.
Sales Agent:
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KENTEX
TEXTILE APRONS

Precision-built, of genuine leather, they "Fit Better—Wear Longer." Write for free samples and prices.

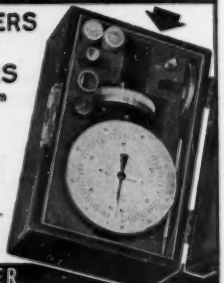
KENTEX APRON

TEXTILE APRON CO., East Point, Ga.

HUGH WILLIAMS & COMPANY, TORONTO, CANADA—CANADIAN REPRESENTATIVE

Control MAXIMUM PRODUCTION
with G. S. HAND TACHOMETERS
and SPEED INDICATORS

1% Accuracy for any range from 30 to 100 000 RPM or surface speed.
Antimagnetic durable mechanism.
Efficient repair service at moderate charges.



IDEAL FOR MOTORS - SHAFTS - SPINDLES - LOOMS - TURBINES - FOR TEXTILE AND POWER PLANTS

WRITE FOR ILLUSTRATED FOLDER

GEORGE SCHERR CO., INC.
200-L LAFAYETTE ST. • N.Y. 12, N.Y.

Warren L. Wurster, formerly plant manager of the Harkness & Cowing Division of **Arnold, Hoffman & Co.** in Cincinnati, has been named assistant plant manager of the Dighton, Mass., plant. Replacing Mr. Wurster at Cincinnati is A. H. Noble, Jr., formerly plant manager at Charlotte, N. C. Howard Belue has assumed the duties of Mr. Noble in the Charlotte plant.

The appointment of John R. Hopkins as assistant manager of the southern district sales office of **Becco Chemical Division,** Food Machinery and Chemical Company, has been announced. Since 1946 Mr. Hopkins has worked out of the Charlotte, N. C., office as a technical representative and in his new capacity he continues to provide customer service to mills in that area.

Mr. Hopkins

Appointment of Sidney B. Ehrlich to the position of Atlanta district manager for **The Bellows Company** has been announced.

John S. McGilly has been appointed assistant sales manager, Textile Fibers Department, **Carbide and Carbon Chemicals Company,** a Division of Union Carbide and Carbon Corporation. He continues to serve as New York district sales manager, in addition to supervising all domestic sales of dynel.

A demonstration dyehouse unit for the benefit of knitters and dyers of sweater fabrics made of Acrilan has been placed in operation by **The Chemstrand Corp.** Located at the plant of North River Yarn Dyers, Union City, N. J., the unit is used to demonstrate to the trade the latest dyeing and finishing techniques. Resident representative for Chemstrand is Henry A. Weil. * * * Prem P. Singh has joined the textile research department of Chemstrand as a textile engineer.

Clinton Foods Inc. has moved into its new laboratory and office building at 520 E. North Street, Greenville. S. C. C. F. Cline, Jr., is district sales manager of the territory served by the new office which includes North Carolina, South Carolina, and eastern Tennessee. Working with him is Frank Rogers at Greenville and Grady Gilbert of Concord, N. C. Directing the activities in the laboratory is Edgar F. Patterson, assisted by Robert A. Conzett.

The Colson Corp. is now a wholly-owned subsidiary of Great American Industries, Inc., Meriden, Conn., according to a joint announcement by Robert T. Dunlap, Great American president, and Robert A. Pritzker, Colson president. Mr. Pritzker said that an agreement which Colson had entered into with F. L. Jacobs Company, Detroit, earlier this year, had been rescinded by mutual consent. Under the agreement with Great American, Colson maintains its corporate identity with Mr. Pritzker remaining as president and the current management team being retained.

Continuous growth and development of its new wholly-owned subsidiary, **Continental-Diamond Fibre Division** of the Budd Company, Inc., are planned by the parent organization which assumed ownership and management of the firm on July 1.

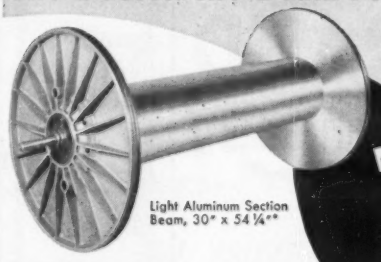
Walter M. Kelly has been elected executive vice-president of **Commercial Factors Corp.** having formerly served as vice-president and a director.

Versenes Incorporated of Framingham, Mass., a recently acquired subsidiary of **The Dow Chemical Co.,** has been absorbed by the parent company. Manufacture of the series of chelating agents sold under the trade names Versene and Versenol will continue at the Framingham plant, but the sales and development functions are being transferred to Dow's headquarters in Midland, Mich. Improved customer service is one of the advantages to be derived by this change.

William R. Creadick, assistant general manager of the textile fibers department of **E. I. du Pont de Nemours & Co., Inc.,** has retired.

Alexander P. Roy, who has represented **Emkay Chemical Co.** in North and South Carolina since last September, has been promoted to sales man-

The Better the Beam . . . the Better the Warp



. . . Better Balance

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BRIGGS Shaffner COMPANY WINSTON-SALEM, NORTH CAROLINA

SUPPLIERS News — WHAT THEY ARE DOING

ager for the southern area which includes Georgia, Alabama, and Tennessee.

New president of **The Fairbanks Co.** is Alexander L. Naylor, who succeeds his father, the late George M. Naylor.

Ten regional sales divisions, with territories arranged for maximum service to industrial instrument users, have been established by **The Foxboro Co.** Administered by H. O. Ehrisman, newly appointed general sales manager, and J. J. Burnett, field sales manager, the new regional structure permits full utilization of the company's 48 branch offices in serving the needs of industry. The ten regional sales offices and regional managers are: New England, H. H. Michelmore; New York, E. R. Huckman; Philadelphia, J. B. Deaderick; Pittsburgh, A. H. Shafer; Atlanta, E. W. Prendergast; Cleveland, H. L. Lee; Chicago, J. J. Connelly; Dallas, E. L. Stark; Houston, L. W. Parten; and San Francisco, R. E. Rogers.

Julian E. Carnes, Jr. has joined the **H. E. Crawford Co. Inc.**, Kernersville, N. C., as head of their newly formed patent department. The new department will enable the Crawford Company to offer inventors a complete

Mr. Carnes

service in the manufacture, promotion, and sale of inventions adapted to be used in the knitting field. Mr. Carnes was formerly associated with Eaton & Bell, patent attorneys of Charlotte, N. C.

Formation of the **Roth Laboratory for Physical Research** as the successor to Rich-Roth Laboratories has been announced by Dr. Wilfred Roth, director. Consulting services are provided and sponsored research is conducted in electronics, ultrasonics, automation, instrumentation, research management, mathematical analysis, etc. The Laboratory is located at 1240 Main Street, Hartford 3, Conn.

Elliott C. Paddock, vice-president in charge of sales of the **Graton & Knight Co.**, has retired. Succeeding Mr. Paddock as sales manager is John G. Henrikson who started to work with Graton & Knight in 1917. Homer LaRue, formerly field sales supervisor for the company, replaces Mr. Henrikson as assistant sales manager.

Thomas H. Roberts has retired as director and technical vice-president of **Arnold Hoffman & Co., Inc.**, Providence, R. I., having been associated with the firm since 1922.

An expansion program involving the purchase of new equipment and expansion of both terminal and maintenance facilities and providing for increased safety and motive power and improved service in its long line operation between Atlanta, Ga., and Boston, Mass., was announced recently by **Johnson Motor Lines, Inc.** In an initial step designed to replace present equipment, 16 Diesel-powered

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tractors, and as many trailers have been obtained.

Philip M. Dinkins has been elected vice-president of operations, dyestuff and chemical division, **General Aniline & Film Corp.**

In the capacity of district sales supervisor, Ed Pickett directs sales of leather belting and accessories, hydraulic and pneumatic packings, textile leathers, and miscellaneous industrial leather products manufactured by the **Graton & Knight Co.** and its subsidiaries in the southeastern states.

L. O. Talley, formerly superintendent of the Mexia (Texas) Textile

Mr. Talley

Mills, is now representing **Hermas Machine Co.** in the states of Texas, Oklahoma, Arkansas, and Louisiana.

Sales manager Jack W. Rembe has been elected vice-president of the **Rodney Hunt Machine Co.** He continues to direct the sales activities of the company.

Ideal Machine Shops, Inc., announces the following additions to the sales organization: James Andrew Rayfield as sales engineer on twisting and spinning spindles in parts of Georiga, South Carolina, and North Carolina, with headquarters in Gastonia, N. C.; Arthur Rayfield as sales engineer on twisting and spinning spindles and card room flyers in Alabama and part of Georgia.

Appointment of Ralph Perkins, Jr., as a sales representative of the Tire Yarn Division of **Industrial Rayon Corp.** has been announced.

A $400 scholarship has been made available as an outright grant by **The Keever Starch Co.** to a freshman enrolling in textile engineering at the Alabama Polytechnic Institute.

Laurel Soap Manufacturing Co., Inc., announces the publishing of "The Laurel Leaf," an external house organ with articles of interest to all segments of the textile industry. The publication is currently being issued on an every-other-month basis and will be sent to all qualified readers who wish to receive copies. Requests to be placed on the mailing list should be sent directly to the company.

A. W. Soell, director of purchases of the **Gaylord Container Corp.,** has been elected president of the National Association of Purchasing Agents for 1955-1956.

Hugh W. Paul has been appointed manager of technical sales service of the **L. O. F. Glass Fibers Co.,** with headquarters at the general offices in Toledo, Ohio. In his new position, Mr. Paul supervises all technical service to the sales divisions and customers of the firm.

Metro-Atlantic, Inc. has opened a new branch office and laboratory at 20-21 Wagaraw Rd., Fairlawn, N. J., to better serve customers in the metropolitan and New Jersey areas.

Nine new salesmen and twenty-seven service engineers were graduated from **Minneapolis-Honeywell Regulator Co.'s** industrial division training school in Philadelphia and have been assigned to twenty-seven branch offices located in twenty-five U. S. cities, Canada, and Germany.

Monarch Elevator & Machine Co. has established a new district office in Charlotte, N. C., to service accounts and promote further sales in that

Mr. Parker

area. A. C. Parker, a nine-year veteran of the company's engineering sales department in Greensboro, has been promoted to district manager and directs the activities of the Charlotte office.

Technical director and sales manager of **Moretex Chemical Products,**

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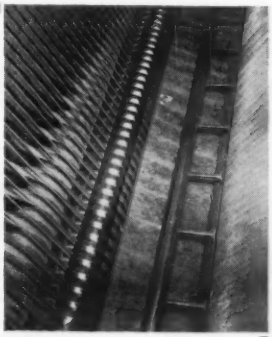

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SUPPLIERS News — WHAT THEY ARE DOING

Inc., a wholly-owned subsidiary of Moreland Chemical Co., Inc., is Ira S. Hurd.

The addition of William G. Stainton as selling agent with headquarters in the Atlanta, Ga., office of the **Whitin Machine Works** has been announced. Mr. Stainton has had extensive mill experience, having served as superintendent of the Otis Company, Palmer & Ware Mills, superintendent of Alabama Mills, and general manager of Appleton Mills.

Oakite Products, Inc., has announced the formation of an export division to serve Latin American and overseas companies. Harry V. Kerker, with Oakite since 1943, is manager of the new division, headquarters of which are in the company's New York City offices.

The Atlanta, Georgia, office of **Penick & Ford, Ltd., Inc.,** which was formerly located at 806 Bona Allen Building, is now in a new building at 1531 Marietta Blvd., N. W., Atlanta 18, Georgia.

Ralph D. Padgett has been named as manager of sales-service of **Roberts Company.** Coming to Roberts from

Mr. Padgett

The Springs Cotton Mills, Mr. Padgett directs the activities of the company's regional sales engineers and erectors, making his headquarters in Sanford, N. C.

Executive vice-president William P. Drake has succeeded George B. Beitzel as president of the **Pennsylvania Salt Manufacturing Co.** Mr. Beitzel continues his association with the company as a member of its board and in addition serves as chairman of the board of the Pennsalt International Corp., a subsidiary.

Hillary Robinette, Jr., president of **Robinette Research Laboratories,** was recently elected chairman of the Pennsylvania Chapter, American Institute of Chemists.

Sarco Company, Inc., has two new sales representatives as follows: J. D. Lammons Co., Memphis, Tenn., and Robert Porter, Jackson, Miss.

J. R. Angel, Guarantee Building, Atlanta, Ga., has been appointed southern representative for **C. G. Sargent's Sons Corp.** for Georgia, Florida, Louisiana, Alabama, Mississippi, and western Tennessee.

Available to the weaving, knitting, and other branches of the industry requiring the services of a throwster is Charles E. Wood, newly appointed southern representative of **Sauquoit Silk Company, Inc.,** Scranton, Pa. Mr. Wood's headquarters are in Charlotte, N. C.

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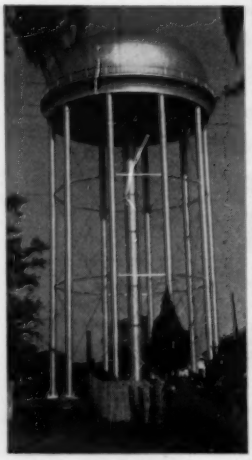

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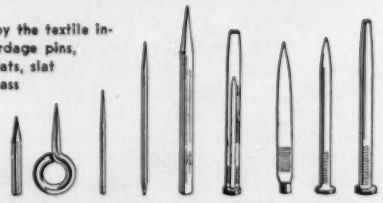

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B Co. by BAGSHAW

A new building is now being occupied by the Houston, Texas, branch of the Texas Selig Co., a subsidiary of **The Selig Co.**, of Atlanta, Ga. Located at 5533 Armour Drive, the one-story, red brick plant contains manufacturing facilities, offices, display space, warehouse and shipping departments, and room for expansion of operations.

Southern States Equipment Corp. has appointed Robert L. Williams as salesman in northern North Carolina

Mr. Williams

and Virginia. Mr. Williams was formerly associated with Caledonia Mills, Inc., Lumberton, N. C., as overseer of carding and spinning. He resides in Burlington, N. C.

Para-Chem, Inc., has announced the appointment of F. J. DeMaria as director of research and Russell F. Crawford, Jr., as a technical sales representative for the recently organized Specialties Division. Headquarters of both men are at Para-Chem's Philadelphia office and laboratory. Formerly a research and development chemist for James Lees & Sons Co., Mr. DeMaria is responsible for initiating and coordinating research and sales service activities on the firm's latex compounds and textile specialties. Mr. Crawford came to Para-Chem from Atlas Powder Co., whose textile chemicals are being distributed by Para-Chem.

James H. Beaumont has been named director of public relations of the **A. E. Staley Manufacturing Co.** He was previously city editor of the Decatur (Ill.) Herald and Review, and succeeds Harold J. Roche, resigned.

Succeeding Theodore B. Hayward, retired, as manager of **Swift & Co.'s** wool department in Philadelphia, Pa., is Leander L. Jones.

Textile Book Publishers, Inc., has been acquired by Interscience Publishers, Inc., and is continuing to publish as a subsidiary of the parent organization.

Election of a new director and promotion of eight staff executives in administrative changes have been announced by **The Torrington Co.** Theophil H. Mueller, assistant to the president, was elected a director. Milton E. Berglund, director and vice-president of manufacturing, has been elected executive vice-president, with Lawrence W. Smith, his assistant, succeeding Mr. Berglund as vice-president of manufacturing. Other changes are: Byron T. Virtue elected vice-president of engineering, a new office; Edward B. Thompson, Bearings Division sales manager, elected vice-president of sales; William R. Reid, Jr., sales manager, Needle Division, elected assistant secretary and general sales manager; Floyd A. Pearce, treasurer and a director, elected vice-president of finance and continuing as treasurer; Walter Hudson elected assistant treasurer; Fay E. White, assistant treasurer, appointed to the newly created office of controller.

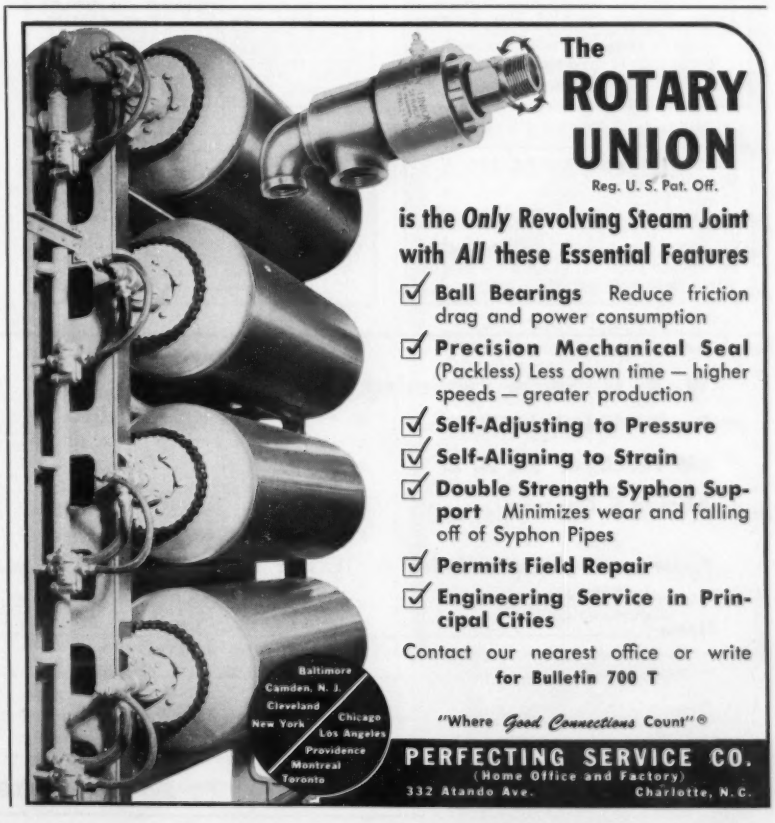
Two executives of **Steel Heddle Mfg. Co.'s** Southern Division won the second annual award for merit presented by the Research Institute of America for their "contribution to executive skills." They are Samuel T. Beacham, personnel director, and Joseph K. Leaphart, employment manager.

Ralph M. Leighton, chief chemist at **Stowe-Woodward, Inc.,** has been appointed technical service manager

Mr. Leighton

and functions as a connecting link between manufacturing, sales, research and development. Dr. Warren Stubblebine recently joined the firm and is serving as director of research and development.

Recently elected to the position of vice-president of **Onyx Oil & Chemical Co.,** Jersey City, N. J., was Dr. Emory I. Valko, director of research. Promoted to the position of assistant director of research in charge of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SUPPLIERS News — WHAT THEY ARE DOING

chemical research for the company was Dr. Guiliana C. Tesoro. Assistant director of research in charge of development and services is Henry A. Molteni.

The New England office of the Textile Fibers Department, Carbide and Carbon Chemicals Co., division of **Union Carbide and Carbon Corp.**, has been transferred to larger quarters in the Union Carbide and Carbon building at 300 First Avenue, Needham Heights, Mass.

Offices and plants of **Taylor Instrument Companies** have been moved across San Francisco Bay to 1661 Timothy Drive, San Leandro, Calif. Set up to make repairs and assemble new instruments, the new plant contains 16,800 sq ft of floor space.

Truscon Laboratories has announced the opening of a new eastern industrial maintenance division office and warehouse located at 1340 West Allegheny Ave., Philadelphia

Mr. Chattin

32, Pa. Joseph T. Chattin is branch manager, assisted by Robert G. Lay. The new branch services industrial accounts in Delaware, Maryland, New Jersey, Metropolitan New York, and part of Pennsylvania. G. Haven Abbett, with offices at 787 First Ave., New York, covers the greater New York area under the Philadelphia headquarters supervision. * * * Phillip Joseph Derbes, 4333 Montevallo Road, Birmingham, Ala., covers Alabama, Mississippi, Florida and part of Louisiana for Truscon as part of the Atlanta, Ga., branch operation.

Marshall L. Hall of Epping, N. H., has joined **Mona Industries, Inc.**, as

Mr. Hall

sales and technical representative in the New England states.

The Metlon Corp. has established the Annual Metlon Textile Design Awards to be offered to students in leading textile schools for the best originally designed and woven fabric incorporating Metlon. A prize of $50.00 will be given to the student submitting the winning design in each school, and an additional $50.00 will be awarded to the best single entry to be chosen from all the regional entries. Each school will make its own final selection, and the grand prize winner will be selected by the Metlon Award Committee. * * * The recently perfected Metlon with Mylar metallic yarn has received the approval of the American Institute of Laundering.

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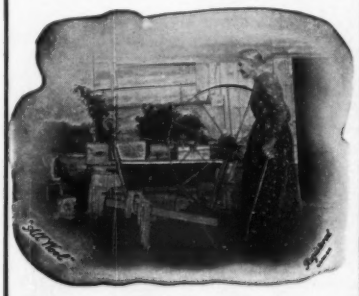

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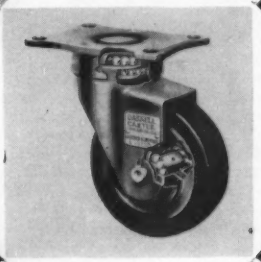

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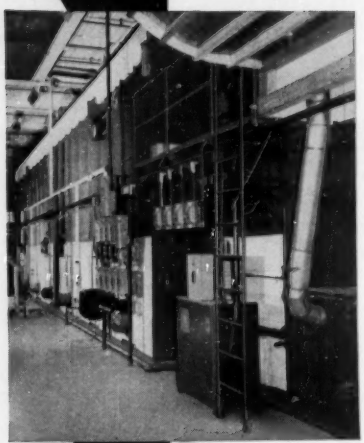

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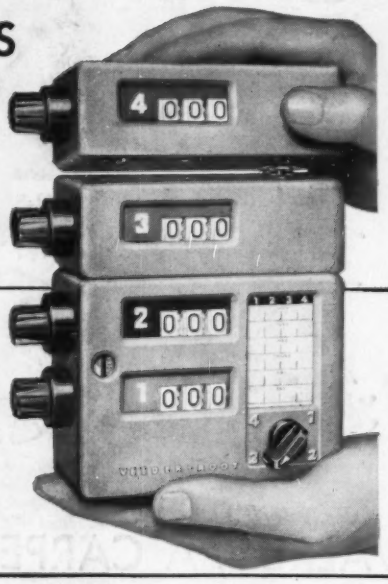

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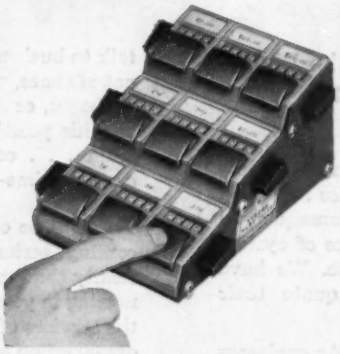

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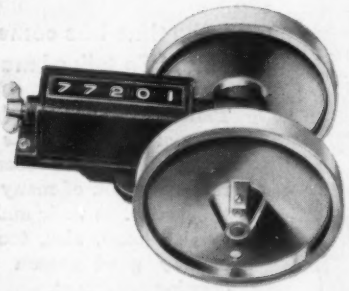

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